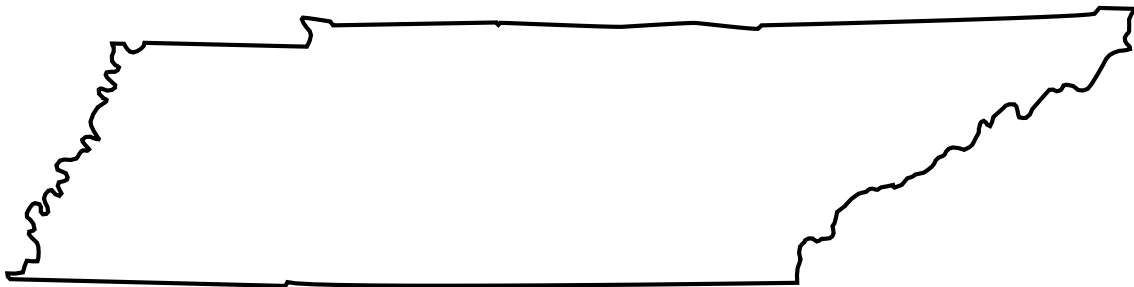


Water Resources Data Tennessee Water Year 2002

By D.F. Flohr, J. W. Garrett, J.T. Hamilton, and T.D. Phillips

Water-Data Report TN-02-1



U.S. DEPARTMENT OF THE INTERIOR
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2003

PREFACE

This volume of the annual hydrologic data report of Tennessee is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, most of the data were collected, computed, and processed from the field offices. The following individuals supervised the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Tennessee and with other agencies under the general supervision of Paul S. Hampson, Data Management Section Chief, and W. Scott Gain, District Chief, Tennessee.

May 2003
Annual-October 1, 2001 to September 30, 2002
Water Resources Data - Tennessee, Water Year 2002

D.F. Flohr, J.W. Garrett, J.T. Hamilton, T.D. Phillips

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Prepared in cooperation with the Tennessee Department of Environment and Conservation; the Tennessee Valley Authority; and with other State, municipal, and Federal Agencies.

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Water resources data for the 2002 water year for Tennessee consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains records for water discharge at 89 gaging stations; stage only for 1 gaging station, elevation and contents for 32 lakes reservoirs; water quality at 9 gaging stations and 15 wells; and water levels for 8 observation wells; and 1 precipitation station. Also included are data for 98 crest stage partial-record stations. Additional water data were collected at various stream sites not involved in the systematic data-collection program, and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the US Geological Survey and cooperating State and Federal agencies in Tennessee.

*Tennessee, *Hydrologic data, *Surface water, *Groundwater, *Water quality, Flow rate, Gaging stations, Lake, Reservoirs, Chemical analyses, Sediment analyses, Water temperature, Sampling sites, Water level, Water analyses

UNCLASSIFIED

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORD ARE PUBLISHED IN THIS VOLUME

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological,
(t) water temperature, (s) sediment, (e) elevation, gage heights, or contents]

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

QUALITY OF GROUND WATER, 2002 WATER YEAR--Continued

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Well 350403089445201 Local number Sh:M-48	405
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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Tennessee have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations.

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Red Boiling Spring at Red Boiling Springs (d)	03312250	USGS		1986
Salt Lick Creek at Red Boiling Springs (d)	03312255	USGS	12.6	1991-97
Crabapple Branch near La Follette (d)	03403718	USGS	1.07	1981-84
Indian Fork above Braytown (d)	03407804	USGS	4.32	1975-78
Green Branch near Hembree (d)	03407874	USGS	1.38	1976-78
Smoky Creek above Hembree (361240084245800) (d)	034078745	USGS	8.07	1982-83
Bills Branch near Hembree (d)	03407875	USGS	.67	1975-83
Shack Creek at Hembree (361341084253900) (d)	034078755	USGS	5.08	1982-84
Smoky Creek near Hembree (d)	03407876	USGS	17.2	1977-84
Bowling Branch above Smoky Junction (d)	03407877	USGS	2.19	1976-81
Anderson Branch near Montgomery (d)	03407881	USGS	.69	1976-80
Lowe Branch near Montgomery (d)	03407882	USGS	.92	1975-80
New River at Cordell (d)	03407908	USGS	198	10/75-77, 5/77-12/87
New River near New River (d)	03408000	USGS	314	1923-35
Long Branch near Grimsley (d)	03408600	USGS	1.11	1976-81
Crooked Creek tributary near Allardt (d)	03408810	USGS	.25	1976-79
Crooked Creek near Allardt (d)	03408815	USGS	3.62	1976-81
White Oak Creek at Sunbright (d)	03409000*	USGS	13.5	1932-33
White Oak Creek at Rugby (d)	03409400	USGS	98.0	1980-82
East Branch Bear Creek near Oneida (d)	03409700	USGS		1994-95
East Branch Bear Creek Tributary near Oneida (d)	03409710	FUSGS		1994-95
Pine Creek tributary at Oneida (d)	03410000	USGS	1.21	1932-33
South Fork Cumberland River at Leatherwood Ford (d)	03410210	USGS	806	1983-87
West Fork Obey River near Alpine (d)	03415000	USGS	115	1943-71, 1980-81
Obey River near Byrdstown (d)	03415500	USGS	445	1919-43
Obey River below Dale Hollow Dam (d)	03417000	USGS	936	1939-42, 1945-58
Roaring River near Hilham (d)	03418000	USGS	78.7	1932-75
Roaring River near Gainesboro (d)	03418188	USGS	276	1975
Cumberland River below Cordell Hull (d)	03418420	USGS	8,095	1980-97
Caney Fork at Clifty (d)	03418500	USGS	111	1931-49
Bee Creek at Herbert (d)	03419000	USGS	101	1931-37
Calfkiller River at Sparta (d)	03419500	USGS	157	1932-41
Calfkiller River below Sparta (d)	03420000	USGS	175	1940-71
Collins River at Beersheba Springs (d)	03420185	USGS	157	1994-95
Collins River near Tarlton (d)	03420200	USGS	174	1994-95
Barren Fork near Trousdale (d)	03420500	USGS	126	1932-57
Collins River near Rowland (d)	03421500	USGS	755	1916-24
Falling Water River near Cookeville (d)	03423000	USGS	67.0	1932-56
Falling Water River below Burgess Falls Dam (d)	03423152	USGS	124	1990-93
Taylor Creek near Cassville (d)	03423400	USGS	34.2	1989-93
Caney Fork below Center Hill Dam, near Lancaster (d)	03424500	USGS	2,183	1923-58
Spring Creek near Lebanon (d)	03425500	USGS	35.3	1955-61
Town Creek at Maple Street at Gallatin (d)	03425646	USGS	4.74	1984
Drakes Creek above Hendersonville (d)	03426000	USGS	19.2	1955-61
Cumberland River at Dam 3, near Old Hickory (d)	03426210	USGS	11,688	1931-42, 1947-53

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi ²)	Period of record
East Fork Stones River at Woodbury (d)	03426800*	USGS	39.1	1932-33, 1950, 1954, 1962-89
Bradley Creek at Lascassas (d)	03427000	USGS	37.0	1955-61
Bushman Creek at Pitts Lane Ford near Compton (d)	03427690	USGS	9.67	1989-92
West Fork Stones River near Murfreesboro (d)	03428000	USGS	128	1932-69
Lytle Creek at Sanbyrn Drive at Murfreesboro (d)	03428043	USGS	17.6	1990-92
Fox Camp Spring at Mankinville (d)	03428047	USGS		1978-80
West Fork Stones River at Manson Pike, at Murfreesboro (d)	03428070	USGS	165	1973-81
Stones River near Smyrna (d)	03429000	USGS	571	1925-67
Stewart Creek near Smyrna (Smyrna Airport) (d)	03429500	USGS	69.7	1953-58
Stones River below J. Percy Priest Dam (d)	03430100	USGS	892	1939-67
Collins Creek at Bell Road, near Antioch (d)	03430800	USGS	3.61	1976-77
Mill Creek near Antioch (d)	03431000	USGS	64.0	1954-61, 1964-75
Browns Creek at State Fairgrounds, at Nashville (d)	03431300	USGS	11.8	1964-75
Cumberland River at Nashville (d)	03431500	USGS	12,856	1893-54
Cummings Branch at Lickton (d)	03431517	USGS	2.40	1976-90
Whites Creek at Tucker Road, near Bordeaux (d)	03431600	USGS	51.6	1965-75
Richland Creek at Charlotte Ave, at Nashville (d)	03431700	USGS	24.3	1964-90
West Harpeth River near Leipers Fork (d)	03432500	USGS	66.9	1955-61
Red River near Portland (d)	03435030	USGS	15.1	1967-75
Red River near Adams (d)	03435500	USGS	706	1920-69
Sulphur Fork Red River near Adams (d)	03436000	USGS	186	1938-91
Piney River at Ft. Campbell, KY-TN (d)	03436420	USGS	50.2	1993-96
Little West Fork near Ft. Campbell, KY-TN (d)	03436426	USGS	128	1993-96
Cumberland River at Clarksville (lock C) (d)	03436500	USGS	15,897	1925-44
Yellow Creek near Shiloh (d)	03436700*	USGS	124	1958-80
Cumberland River at Dover (gaging station) (d)	03437000	USGS	16,437	1938-65
French Broad River near Newport (d)	03455000	TVA	1,858	1900 1901 1902-05, 1907 1920-94
Pigeon River at Hartford (d)	03461000	USGS	547	1925-48
Cosby Creek above Cosby (d)	03461200	USGS	10.1	1967-87
Pigeon River at Newport (d)	03461500	USGS	666	1900-29, 1945-46, 1948-82, 1982-83
North Indian Creek near Unicoi (d)	03465000	USGS	15.9	1944-57
Muddy Fork near Leesburg (d)	03465830	USGS	13.5	1994-95
Jockey Creek near Mount Bethel Church near Limestone (d)	03466098	USGS	18.5	1994-95
Sinking Creek at Afton (d)	03466228	USGS	13.7	1977-2000
Nolichucky River below Nolichucky Dam (d) (e)	03466500	USGS	1,184	1902-09, 1919-26, 1946-73
Lick Creek near Holland Mill (d)	03466825	USGS	53.0	1994-95
Lick Creek at Mohawk (d)	03467000	USGS	220	1946-71
Nolichucky River near Morristown (d)	03467500	USGS	1,679	1921-57
Long Creek near White Pine (d)	03468050	TVA	30.8	1964-81
French Broad River below Douglas Dam (d)	03469000	USGS	4,543	1919-74
Millican Creek near Douglas Dam (d)	03469010	TVA	4.22	1942-62
Roaring Fork Creek at Hwy 441, at Gatlinburg (d)	03469282	TVA	7.23	1977-82
Dudley Creek at Gatlinburg (d)	03469390	TVA	8.84	1977-82

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi ²)	Period of record
West Prong Little Pigeon River near Pigeon Forge (d)	03469500	USGS	76.2	1946-49
		TVA		1967-69
Little Pigeon River at Sevierville (d)	03470000	USGS	353	1921-82
South Fork Holston River below South Holston Dam (d)	03476500	USGS	703	1951-74
South Fork Holston River at Bluff City (d)	03477000	USGS	813	1900-53
Beaver Creek at Bristol (d)	03478500	USGS	44.8	1932-34
Beaver Creek at Buffalo School, near Bluff City (d)	03478620	TVA	108	1934-38
Watauga River at North Carolina-Tennessee State Line (d)	03479500	USGS	152	1943-55
Watauga River at Stump Knob (d)	03480000	USGS	171	1928-31, 1934-45
Roan Creek near Neva (d)	03482000	USGS	102	1942-55
Roan Creek at Butler (d)	03482500	USGS	166	1901-02, 1934-48
Watauga River at Butler (d)	03483000	USGS	427	1900-02, 1921-48
Watauga River below Wilbur Dam (d)	03484000	USGS	471	1903-09, 1948-82
Watauga River at Siam (d)	03484110	TVA	480	1946
Doe River at Old Hopson School (d)	03484490	TVA	59.3	1967-69
Doe River at Blevins (d)	03484500	USGS	60.8	1912-15
Laurel Fork above Braemar (d)	03484900	TVA	23.0	1945-51
Laurel Fork above Hampton (d)	03484910	TVA	25.3	1948-52
Doe River at Elizabethton (d)	03485500	USGS	137	1912-16, 1921-82
Watauga River at Elizabethton (d)	03486000	USGS	692	1926-49, 1953-82
Buffalo Creek at Milligan College (d)	03486200	TVA	28.1	1965-81
Brush Creek at Johnson City (Tennessee Street) (d)	03486490	TVA	6.78	1969-73
Brush Creek at Johnson City (Elm Street) (d)	03486495	TVA	9.58	1969-72
Brush Creek at Johnson City (d)	03486500	USGS	10.3	1932-34
Fall Creek near Fort Patrick Henry Dam (d)	03486900	TVA	13.1	1953-56
South Fork Holston River at Kingsport (d)	03487500	USGS	1,935	1926-77
South Fork Holston River at Kingsport (auxiliary channel) (d)	03487501	USGS	1.0	1953-77
Reedy Creek at Orebank (d)	03487550*	USGS	36.3	1963-89
South Fork Holston River near Ridgefields Bridge, at Kingsport (d)	03487640	TVA	2,047	1968-69
Holston River at Surgoinsville (d)	03490500	USGS	2,874	1941-88
Beech Creek at Kepler (d)	03491300	USGS	47.0	1965-87
Holston River near Rogersville (d)	03491500	USGS	3,035	1901-42
Poor Valley Creek near Mooresburg (near Spruce Pine School) (d)	03491800	USGS	32.3	1958-61
Poor Valley Creek near Mooresburg (d)	03491820	TVA	43.3	1959-60
Holston River near Morristown (d)	03492000	USGS	3,244	1937-42
Mossy Spring near Jefferson City (d)	03492500	USGS		1950-59
Mossy Creek at Jefferson City (d)	03493000	USGS	30.8	1932-34
Holston River near Jefferson City (d)	03494000	USGS	3,429	1937-74
Mill Spring near Jefferson City (d)	03494500	TVA		1941-48
		USGS		1951-59
Holston River near Knoxville (d)	03495500	USGS	3,747	1930-76 1978-93
First Creek at Mineral Springs Avenue, at Knoxville (d)	03496000	USGS	15.7	1945-63
First Creek above Powers Avenue, at Knoxville (d)	03496200	USGS	17.2	1964-70
First Creek at Fifth Avenue, at Knoxville (d)	03496500	USGS	21.1	1932-34, 1945-59
Tennessee River at Knoxville (Gay Street Bridge) (d)	03497000	USGS	8,934	1900-82
Fourth Creek at Knoxville (d)	03497110	TVA	9.65	1942-43

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

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Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Little River at Walland (d)	03497500	USGS	175	1925-31
Little River near Walland (d)	03498000	USGS	192	1931-52
Pistol Creek at Maryville (d)	03499000	USGS	13.5	1932-33
Little River below Rockford Dam, at Rockford (d)	03499100	TVA	346	1940-44
Little River near Rockford (d)	03499110	TVA	352	1936-37
Ten Mile Creek near Ebenezer (d)	03499200	TVA	13.2	1941-45
Muddy Creek near Fort Loudon Dam (d)	03499600	TVA	10.7	1941-59
Little Tennessee River at Calderwood (d)	03518000	USGS	1,862	1912-19, 1921-57
Little Tennessee River below Chilhowee Dam (d)	03518300	USGS	1,987	1958-79
North Fork Citico Creek near Tellico Plains (d)	03518400	TVA	7.04	1960-71
Tellico River at Tellico Plains (d)	03518500	USGS	118	1925-82
Little Tennessee River at McGhee (d)	03519500	USGS	2,443	1905-69
Baker Creek near Greenback (d)	03519640*	USGS	16.0	1966-75
Tennessee River at Loudon (d)	03520000	USGS	12,220	1923-55
Sweetwater Creek below Sweetwater (d)	03520045	TVA	26.4	1970-81
Sweetwater Creek near Sweetwater (d)	03520050	TVA	28.2	1964-70
Big Sycamore Creek near Sneedville (d)	03528100	TVA	5.49	1935-45
Big Barren Creek near New Tazewell (d)	03528300	TVA	22.5	1935-45
White Creek near Sharps Chapel (d)	03528400	TVA	2.68	1935-72
Powell River near Arthur (d)	03532000	USGS	685	1920-82
Davis Creek near Speedwell (d)	03532100	TVA	31.2	1936-37
Big Creek near La Follette (d)	03532220	TVA	26.2	1936-38
Clinch River below Norris Dam (d)	03533000	USGS	2,913	1904-74
Clear Creek near Norris (d)	03533100	TVA	2.83	1934-38
Coal Creek at Lake City (d)	03534000*	USGS	24.5	1932-34
Buffalo Creek at Norris (d)	03534500	USGS	9.92	1947-51
Bullrun Creek near Halls Crossroads (d)	03535000	USGS	68.5	1957-86
Scarboro Creek Tributary near Haw Ridge near Oak Ridge (d)	03535102	USGS	0.41	1989-91
Scarboro Creek Tributary near Oak Ridge (d)	03535103	USGS	0.41	1989-91
Whiteoak Creek near Melton Hill (d)	03536320	USGS	1.31	1987-95
Whiteoak Creek near Wheat (d)	03536380	USGS	2.10	1986-95
Northwest Tributary near Oak Ridge (d)	03536440	USGS	0.67	1987-95
First Creek near Oak Ridge (d)	03536450	USGS	0.33	1987-96
Whiteoak Creek at ORNL, near Oak Ridge (d)	03536500	USGS	2.08	1950-55
Whiteoak Creek below Melton Valley Drive near Oak Ridge (d)	03536550	USGS	3.28	1987-96
Whiteoak Creek below ORNL, near Oak Ridge (d)	03537000	USGS	3.62	1950-53, 1955-64
Melton Branch tributary (East Seven) near Oak Ridge (d)	03537050	USGS	.24	1987-91 1992-93
Melton Branch near Melton Hill, near Oak Ridge (d)	03537100	USGS	0.52	1985-95
Melton Branch tributary (Center Seven) near Oak Ridge (d)	03537200	USGS	.07	1987-91 1992-93
Melton Branch tributary (West Seven) near Oak Ridge (d)	03537300	USGS	.15	1987-89 1992-93
Melton Branch near Oak Ridge (d)	03537500	USGS	1.48	1955-64
Whiteoak Creek at Whiteoak Dam, near Oak Ridge (d)	03538000	USGS	6.01	1953-55, 1960-64
Clinch River near Oak Ridge (d)	03538150	USGS	3,385	1937-64, 1968
Poplar Creek near Oak Ridge (d)	03538225	USGS	82.5	1960-89
East Fork Poplar Creek at Y-12 at Oak Ridge (d)	03538231	USGS	0.81	1992-96
East Fork Poplar Creek near Oak Ridge (d)	03538250	USGS	19.5	1960-88
Bear Creek at Bear Creek Road near Oak Ridge (d)	03538256	USGS	0.42	1993-96

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

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Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Bear Creek at County Line near Oak Ridge (d)	03538260	USGS	1.57	1993-96
Bear Creek tributary above Bear Creek Road near Wheat (d)	035382672	USGS	.30	1986-91
Bear Creek near Wheat (d)	035382673	USGS	3.20	1986-91
Bear Creek tributary near Wheat (d)	035382677	USGS	.14	1986-89 1992-93
Bear Creek at State Hwy 95 near Oak Ridge (d)	03538270	USGS	4.34	1985-2000
Bear Creek tributary at Hwy 95 near Wheat (d)	03538272	USGS	.14	1986-89
Bear Creek at Pine Ridge near Wheat (d)	03538273	USGS	5.0	1986-91
Bear Creek near Oak Ridge (d)	03538275	USGS	7.15	1960-64
Emory River near Wartburg (d)	03538500	USGS	83.2	1934-57, 1966-68
Obed River at Crossville (d)	03538600	USGS	12.0	1950-51, 1955-85, 1991-95
Daddys Creek near Grassy Cove (d)	03539000	USGS	51.2	1925-30
Daddys Creek near Crab Orchard (d)	03539500	USGS	93.5	1931-58
Daddys Creek near Hebbertsburg (d)	03539600	USGS	139	1957-68
Clear Creek near Lancing (d)	03539750	USGS	153	1966-68
Obed River near Lancing (d)	03539800	USGS	518	1956-68, 1973-88
Crooked Fork near Wartburg (d)	03539860	USGS	50.3	1966-68
Emory River at Deermont (d)	03540000	USGS	704	1920-28
Crab Orchard Creek near Deermont (d)	03540100	USGS	33.7	1966-68
Bitter Creek near Oakdale (d)	03541300	USGS	12.6	1967-75
Kingston Creek at Kingston (d)	03541400	TVA	.74	1940-41
Whites Creek near Glen Alice (d)	03541500	USGS	108	1934-55
Whites Creek at Glen Alice (d)	03542000	USGS	120	1931-34
Piney River at Spring City (d)	03542500	USGS	95.9	1927-31
Sewee Creek near Decatur (d)	03543500	USGS	117	1934-94
Tennessee River at Breedenton (d)	03544000	USGS	17,440	1934-40
Richland Creek near Dayton (d)	03544500	USGS	50.2	1927-31, 1934-55, 1979-82
Turtletown Creek at Turtletown (d)	03556000	USGS	26.9	1934-71
Hiwassee River near McFarland (d)	03556500	USGS	1,136	1943-81
Hiwassee River near Reliance (d)	03557000	USGS	1,233	1900-14, 1918-48
Ocoee River at Copperhill (d)	03559500	USGS	352	1903-14, 1943-70
North Potato Creek tributary, Copper Basin area 6, near Ducktown (d)	03560700	TVA	.01	1940-51
Burra-burra Creek tributary, Copper Basin area 5, near Ducktown (d)	03560800	TVA	.02	1940-51
North Potato Creek near Ducktown (d)	03561000	USGS	13.0	1934-70
North Potato Creek tributary No. 2, Copper Basin area 1-W, near Ducktown (d)	03561200	TVA	.01	1942-52
North Potato Creek tributary No. 3, Copper Basin area 1-E, near Ducktown (d)	03561300	TVA	.01	1942-52
Ocoee River at McHarg (d)	03561500	USGS	447	1917-43
Walkertown Branch tributary, Copper Basin area 4, near Ducktown (d)	03561700	TVA	.01	1940-45
Ocoee River tributary, Copper Basin area 3, near Ducktown (d)	03561800	TVA	.01	1940-51
Brush Creek near Ducktown (d)	03562000	USGS	14.4	1934-42
Hiwassee River above Charleston (d)	03565000	USGS	2,001	1954-76
Chestuee Creek above Englewood (d)	03565040	TVA	14.8	1944-57

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

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Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Little Chestuee Creek below Wilson Station (d)	03565080	TVA	8.54	1947-57
Chestuee Creek at Zion Hill (d)	03565120	TVA	37.8	1944-62
Middle Creek below Hwy 39 near Englewood (d)	03565160	TVA	32.7	1944-62
Chestuee Creek near Athens (d)	03565200	TVA	77.9	1944-54
Chestuee Creek at Dentville (d)	03565250	USGS	114	1944-62
South Chestuee Creek near Benton (d)	03565300	USGS	31.8	1957-86
Oostanaula Creek near Sanford (d)	03565500	USGS	57.0	1954-89
Oostanaula Creek near Calhoun (d)	03565700	TVA	67.0	1940-44
Wolftever Creek near Ooltewah (d)	03566420*	USGS	18.8	1964-89
Long Savannah Creek near Snow Hill (d)	03566450	TVA	28.3	1939-44
North Chickamauga Creek at Upper Mill, near Hixson (d)	03566600	TVA	99.5	1937-43
North Chickamauga Creek near Hixson (d)	03566630	TVA	114	1937-43
South Chickamauga Creek near Chickamauga (d)	03567500	TVA	428	1928-78
				1980-94
South Chickamauga Creek near McCarty (d)	03567600	TVA	458	1937-45
Sequatchie River near College Station (d)	03570650	USGS	154	1966-68
Sequatchie River near Whitwell (d)	03571000	TVA	402	1920-94
Little Sequatchie River at Sequatchie (d)	03571500*	USGS	116	1932-34
Tennessee River at South Pittsburg (d)	03571850	USGS	22,640	1930-87
Elk River near Pelham (d)	03578000	USGS	65.6	1952-88
Bradley Creek Tributary at AEDC near Manchedster	03578455	USGS		1993-96
Bradley Creek near Prairie Plains (d)	03578500	USGS	41.3	1952-60
Brumalow Creek at AEDC near Manchester (d)	03578600	USGS		1993-96
Rowland Creek at AEDC near Manchester (d)	03578970	USGS		1994-96
Elk River near Estill Springs (d)	03579100	USGS	275	1921-81
Rock Creek at Tullahoma (d)	03579620	USGS	12.3	1991-96
Boiling Fork Creek south of Cowan (d)	03580000	USGS	20.2	1932
Boiling Fork Creek above Winchester (d)	03580300	USGS	55.9	1962-70
Boiling Fork Creek at Winchester (d)	03580500	USGS	77.1	1932-34
Elk River below Tims Ford Dam (d)	03580750	USGS	534	1966-76
Jack Daniel Spring at Lynchburg (d)	03580990	USGS		1970-78
East Fork Mulberry Creek below Jack Daniel Distillery at Lynchburg (d)	03580995	USGS	23.4	1987-94
East Fork Mulberry Creek at Lynchburg (d)	03581000	USGS	23.1	1932
East Fork Mulberry Creek near Lynchburg (d)	03581100	TVA	29.5	1967-69
East Fork Mulberry Creek near Mulberry (d)	03581200	TVA	49.4	1967-69
West Fork Mulberry Creek near Booneville at Mt. Herman (d)	03581400	TVA	17.4	1967-69
West Fork Mulberry Creek at Mulberry (d)	03581500	USGS	41.2	1954-62,
				1966-68
Elk River above Fayetteville (d)	03582000	USGS	827	1934-82
Union Branch below Belleville (d)	03582140	USGS	2.37	1977
Elk River near Fayetteville (d)	03582500	USGS	897	1926-34
Bradshaw Creek at Frankewing (d)	03583000	USGS	36.5	1955-61,
				1966-68
Richland Creek near Cornersville (d)	03583300*	USGS	47.5	1961-68
Factory Creek (head of Big Creek) near Campbellsville (d)	03583330	USGS	38.2	1966-68
Yokley Creek near Campbellsville (d)	03583360	USGS	20.2	1966-68
Weakley Creek near Bodenham (d)	03583500	USGS	24.4	1955-61,
				1966-68
Richland Creek near Pulaski (d)	03584000	USGS	366	1934-75
Elk River at Prospect (d)	03584600	USGS	1805	1904-08,
				1919-94

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

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Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Shoal Creek at Lawrenceburg (d)	03588000	USGS	55.4	1932-34 1967-91
Chisholm Creek at Westpoint (d)	03588400	USGS	43.0	1962-88
Shoal Creek at Iron City (d)	03588500	USGS	348	1925-94
Snake Creek near Adamsville (d)	03593300	TVA	49.4	1940-59
Holland Creek near Lowryville (d)	03593700	TVA	14.9	1965-78
Horse Creek near Savannah (d)	03594000	USGS	114	1929-34
Turkey Creek near Savannah (d)	03594040	TVA	53.7	1940-59
White Oak Creek near Milledgeville (d)	03594058	TVA	46.1	1940-59
White Oak Creek at Milledgeville (d)	03594110	TVA	49.2	1961-65
Middleton Creek near Milledgeville (d)	03594120	TVA	45.5	1940-59
Indian Creek near Cerro Gordo (d)	03594160	TVA	201	1940-59
Banjo Branch near Waynesboro (d)	03594164	USGS	2.14	1988-89
Beech River near Lexington (d)	03594415	TVA	15.9	1953-63
Wolf Creek at Graper Springs (d)	03594420	TVA	11.7	1953-55
Pine Tree Branch near Lexington (d)	03594425	TVA	.14	1941-78
Harmon Creek near Lexington (d)	03594430	TVA	6.87	1953-73
Piney Creek at Hwy 104 near Lexington (d)	03594435	TVA	19.2	1953-55, 1957-73
Cane Creek near Shady Hill (d)	03594437	TVA	20.7	1966-73
Haley Creek near Chesterfield (d)	03594441	TVA	8.30	1953-55
Beech River near Chesterfield (old channel before channelization) (d)	03594445	TVA	11.5	1940-54, 1960-65
Browns Creek near Chesterfield (d)	03594450	TVA	202	1953-63
Cane Creek near Shady Hill (d)	03594455	TVA	16.8	1953-64
Cane Creek near Chesterfield (old channel before channelization) (d)	03594460	TVA	222	1940-54
Beech River near Darden (old channel before channelization) (d)	03594465	TVA	165	1954-60
Flat Creek near Middleburg (d)	03594470	TVA	13.8	1953-55
Big Creek near Darden (d)	03594475	TVA	10.6	1953-55, 1966-73
Turkey Creek near Decaturville (d)	03594480	TVA	8.40	1953-63
Turkey Creek at Middleburg Road, near Decaturville (d)	03594482	TVA	11.5	1964-73
Rushing Creek near Decaturville (d)	03594485	TVA	17.0	1953-55
Tennessee River at Perryville (d)	03594500	USGS	34,550	1931-32
Duck River near Manchester (d)	03595000	USGS	55.2	1932-34
Little Duck River at Manchester (d)	03595500	USGS	40.4	1932-34
Duck River below Manchester (d)	03596000	USGS	107	1934-88
Duck River at Normandy (d)	03596500	USGS	208	1920-31, 1972-75
Garrison Fork at Fairfield (d)	03597000	USGS	66.3	1953-58, 1966-68
Wartrace Creek at Bell Buckle (d)	03597500	USGS	16.3	1953-61, 1966-75
Wartrace Creek at Wartrace (d)	03597600	USGS	36.4	1966-68
Fall Creek near Deason (d)	03598173	USGS	16.4	1994-95
Fall Creek near Halls Mill (d)	03598179	USGS	39.0	1994-95
North Fork Creek near Poplins Crossroad (d)	03598250	USGS	71.9	1994-95
Big Rock Creek at Lewisburg (d)	03599000	USGS	24.9	1953-61, 1966-68 1995-2000
Fountain Creek near Culleoka (d)	03599430	USGS	26.9	1966-68
Fountain Creek near Fountain Heights (d)	03599450	USGS	74.0	1966-68
Rutherford Creek near Carters Creek (d)	03600000	USGS	68.8	1953-58
Rutherford Creek (No. 4) near Columbia (d)	03600100	TVA	112	1948-53

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
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Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Rutherford Creek (No. 3) near Columbia (d)	03600200	TVA	116	1948-49
Little Bigby Creek at Experiment Lane at Columbia (d)	03600258	USGS	42.6	1990-92
Big Bigby Creek at Sandy Hook (d)	03600500	USGS	17.5	1953-87, 1988-89
Big Bigby Creek near Mount Pleasant (d)	03601000	USGS	25.8	1953-57
Big Bigby Creek at Cross Bridges (d)	03601500	USGS	112	1938-39
Duck River at Centerville (d)	03602000	USGS	2,048	1919-55
Piney River at Vernon (d)	03602500	USGS	193	1925-93
Duck River above Hurricane Mills (d)	03603000	USGS	2,557	1925-94
Hurricane Creek at Hurricane Mills (d)	03603500	USGS	75.1	1932-33
Coon Creek near Hohenwald (d)	03604100	USGS	10.0	1967-74
Buffalo River below Lobelville (d)	03604400	USGS	702	1927-89, 1989-94
Buffalo River near Lobelville (d)	03604500	USGS	707	1987-89
Blue Creek at State Hwy 13 near Waverly (d)	03604600	TVA	24.8	1964-71
Birdsong Creek near Holladay (d)	03604800	TVA	44.9	1940-68
Trace Creek at Waverly (d)	03605500	USGS	20.1	1932-33
Cotton Creek near Camden (d)	03606400	TVA	.43	1941-45
Big Sandy River at Big Sandy (d)	03607000	USGS	379	1935-44
Clifty Creek at Clifty Creek Road near Paris (d)	03607198	USGS	8.06	1994-95
Holly Fork Creek at Nobles (d)	03607225	USGS	26.8	1994-95
Beaverdam Creek at Sulphur Well Road near Nobles (d)	03607232	USGS	6.69	1994-95
Tennessee River near Buchanan (d)	03607500	USGS	39,730	1930-43
Crooked Creek at Highway 22 near Huntingdon (d)	07024200	USGS	89.8	1994-95
Beaver Creek at Huntingdon (d)	07024300*	USGS	55.5	1946, 1948, 1952-54, 1958-88
Beaver Creek at Hwy 22 Bypass near Huntingdon (d)	07024305	USGS	58.6	1994-96
South Fork Obion River near Greenfield (d)	07024500*	USGS	383	1929-89
Rutherford Fork Obion River near Bradford (d)	07025000	USGS	201	1929-57
North Fork Obion River near Union City (d)	07025500	USGS	480	1929-71, 1989-93
Obion River at U.S. Highway 51 near Obion (d)	07026040	USGS	1,875	1929-1958, 1966-1995
North Reelfoot Creek at State Hwy 22 near Clayton (d)	07026370	USGS	56.3	1980-83, 1984-89
South Reelfoot Creek near Clayton (d)	07026400	USGS	36.6	1984-89
Reelfoot Creek near Samburg (d)	07026500	USGS	110	1951-73
Reelfoot Lake near Phillippy (e)	07026690	USGS	240	1984-88
Indian Creek near Samburg (d)	07026795	USGS	8.01	1982-86
South Fork Forked Deer River at Jackson (d)	07027500	USGS	495	1929-73, 1988-91
South Fork Forked Deer River at Chestnut Bluff (d)	07028000	USGS	1,003	1929-57
North Fork Forked Deer River at Trenton (d)	07028500	USGS	73.5	1950-71
Middle Fork Forked Deer River near Alamo (d)	07029000	USGS	369	1929-73
Hatchie River near Stanton (d)	07030000	USGS	1,975	1929-58
Cane Creek at Three Point (d)	07030137	USGS	79.8	1985-87
Kelly Branch near Clopton (d)	07030245	USGS	7.79	1975-76
Beaver Creek near Arlington (d)	07030250	USGS	148	1994-95
Loosahatchie River tributary at New Allen Road at Memphis (d)	07030295	USGS	1.26	1977-83
Wolf River at Rossville (d)	07030500	USGS	503	1929-72
Marys Creek at Pisgah Road, near Fisherville (d)	07031500	USGS	13.6	1955-57
Fletcher Creek near Cordova (d)	07031680	USGS	1.45	1974-83
Fletcher Creek at Whitten Road at Memphis (d)	07031683	USGS	21.4	1978-82

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

[Letters after station name designate type of data collected: (d) discharge, (e) elevation (stage only);
Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority]

Station name	Station number	Agency	Drainage area (mi ²)	Period of record
Unnamed tributary at Charles Bryan Road, near Cordova (d)	07031685	USGS	3.18	1975-77
Lick Creek at Dickinson Street, at Memphis (d)	07031777	USGS	2.96	1975-83
Nonconnah Creek near Germantown (d)	07032200	USGS	68.2	1969-1985 1985-1995
Johns Creek tributary at Holmes Road, near Memphis (d)	07032222	USGS	5.83	1975-85
Johns Creek at Raines Road, at Memphis (d)	07032224	USGS	19.4	1975-82, 1985
Black Bayou at Southern Avenue, at Memphis (d)	07032241	USGS	.59	1975-83
Cane Creek at East Person Avenue, at Memphis (d)	07032248	USGS	4.98	1975-85
Cypress Creek at Neely Road, at Memphis (d)	07032260	USGS	3.18	1975-85

DISCONTINUED SURFACE-WATER QUALITY STATIONS

The following stations were discontinued as continuous-record surface-water-quality stations prior to the 1991 water year. Water-quality data (daily or periodic samples with collection frequency not less than quarterly) were collected and published for the period of record shown for each station. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the District Chief at the address given on the back of the title page of this report.

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi ²)	Type of record	Period of record (water years)
Crabapple Branch near La Follette	03403718	USGS	1.07	C,T	1981-84
Indian Fork above Braytown	03407804	USGS	4.32	C	1975-81
New River at Stainville	03407850	USGS	66.0	C,S	1975-77, 1979-81
Green Branch near Hembree	03407874	USGS	1.38	C,S	1975-81
Smoky Creek above Hembree (361240084245800)	034078745	USGS	8.07	S	1982-83
Bills Branch near Hembree	03407875	USGS	.67	C,S	1975-83
		USGS		C,S,T	1980-83
Shack Creek at Hembree (361341084253900)	034078755	USGS	5.08	C,S,T	1982-84
Smoky Creek at Hembree	03407876	USGS	17.2	S	1978-84
		USGS		C,T	1980-84
Bowling Branch above Smoky Junction	03407877	USGS	2.19	C,S	1975-83
Smoky Creek at Smoky Junction	03407879	USGS	32.8	C,S	1975-77, 1979-81
Anderson Branch near Montgomery	03407881	USGS	.69	C	1975-81
Lowe Branch near Montgomery	03407882	USGS	.92	C	1975-81
New River at Cordell	03407908	USGS	198	C,S	1976-77, 1979-82
New River at New River	03408500	USGS	382	C,T	1977-86
		USGS		C,S	1965-67, 1975-77, 1979-81
Clear Fork near Robbins	03409500	USGS	272	T	1982-86
		USGS		C	1982, 1984-86
		USGS		C,S	1964-65, 1976-77, 1979-82, 1984
South Fork Cumberland River at Leatherwood Ford	03410210	USGS	806	C,S,T	1986
		USGS		C,S	1979-80, 1984-85
Cumberland River at Celina	03417500	USGS	7,307	C,T	1991-97
Roaring River near Hilham	03418000	USGS	78.7	T	1969-71
Roaring River above Gainesboro	03418070	USGS	210	C,S	1980-83
Cumberland River below Cordell Hull Dam	03418420	USGS	8,095	CT	1980-97
Collins River near McMinnville	03421000	USGS	640	C,S	1964-67, 1979-82
Cumberland River at Carthage	03425000	USGS	10,690	C,T	1975-81
East Fork Stones River near Lascassas	03427500	USGS	262	C,T	1975-1990
West Fork Stones River near Murfreesboro	03428000	USGS	128	C	1964-68
West Fork Stones River at Manson Pike, at Murfreesboro	03428070	USGS	165	C,T	1973-82
West Fork Stones River near Smyrna	03428500	USGS	237	T	1974-1990
Richland Creek at Charlotte Avenue, at Nashville	03431700	USGS	24.3	C,S	1901, 1979-83
Harpeth River near Kingston Springs	03434500	USGS	681	C,S	1979-83
Cumberland River below Cheatham Dam	03435000	USGS	14,163	C,T	1993-97
Sulphur Fork Red River near Greenbrier	03435637	USGS	34.9	T	1976-78
Sulphur Fork Red River above Beaverdam Creek, near Springfield	03435700	USGS	49.1	T	1975-77
Sulphur Fork Red River above Springfield	03435770	USGS	65.6	C,S	1976-83
Sulphur Fork Red River near Adams	03436000	USGS	186	C,S	1964, 1979-83
Red River at Port Royal	03436100	USGS	935	C,S	1979-83
Boiling Springs at Ft. Campbell, KY-TN	03436421	USGS		C,T	1994-96
Yellow Creek near Shiloh	03436700	USGS	124	C,S	1964-65, 1979-81
French Broad River below Hot Springs, NC	03454757	USGS	1,712	C	1970-73

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi ²)	Type of record	Period of record (water years)
French Broad River near Newport	03455000	TVA	1,858	C	1946-47, 1960-61, 1969-70, 1974-75, 1979-80
Muddy Fork near Leesburg	03465830	USGS	13.5	C,S,T	1993-95
Nolichucky River at Embreeville	03465500	USGS	805	C,S	1979-82
Jockey Creek near Mount Bethel Church near Limestone	03466098	USGS	18.5	C,S,T	1993-95
Big Limestone Creek near Limestone	03466208	USGS	79.0	T	1996-2000
Nolichucky River below Nolichucky Dam	03466500	TVA	1,184	C	1974-79
		TVA		T	1962
Lick Creek near Holland Mill	03466825	USGS	53.0	C,S,T	1993-95
Nolichucky River near Lowland	03467609	USGS	1,687	T	1998-2000
French Broad River at Douglas Dam (tailwater)	03468510	TVA	4,541	C	1975-80
Little Pigeon River at Sevierville	03470000	TVA	353	C	1967-68, 1970
		TVA		T	1969-74
		USGS		C,S	1979-82
French Broad River near Knoxville	03470500	USGS	5,101	C,T	1975-82
		USGS		B,C,S,T	1975-86
South Fork Holston River at South Holston Dam	03476010	TVA	703	C	1975-80
Watauga River at Stump Knob	03480000	TVA	171	T	1962
Elk River at Elk Mills	03481450	TVA	74.0	C	1975-76
Roan Creek near Doevoile	03482100	TVA	110	T	1962, 1971-74
		TVA		C	1975-76
Watauga River below Watauga Dam	03483950	TVA	468	C	1973, 1975-80
Doe River at Hampton	03484800	TVA	100	T	1968-73
Doe River at Elizabethton	03485500	TVA	137	C	1967-68, 1971
		TVA		T	1954-63
		USGS		C,S	1979-82
South Fork Holston River at Boone Dam (tailwater)	03486810	TVA	1,840	C	1975-78
South Fork Holston River at Ft. Patrick Henry Dam	03487010	TVA	1,903	C	1975-80
Reedy Creek at Orebank	03487550	TVA	36.3	T	1964-66
		TVA		C	1964-67
		USGS		C,S	1979-82
Holston River near Church Hill	03490350	TVA	2,819	C	1974-78
Holston River at Surgoinsville	03490500	USGS	2,874	T	1975-82
		TVA		C	1974-80
Big Creek near Rogersville	03491000	USGS	47.3	T	1972-75, 1977-79
Beech Creek at Kepler	03491300	TVA	47.0	T	1966-68
Holston River near Rogersville	03491500	TVA	3,035	T	1966-75
Holston River at Cherokee Dam (tailwater)	03493510	TVA	3,428	C	1975-80
Holston River near Knoxville	03495500	USGS	3,747	C,B,S	1977-93
First Creek above Powers Avenue, at Knoxville	03496200	USGS	17.2	T	1969-71
Tennessee River below Knoxville	03497100	TVA	8,963	T	1970-80
Little River above Townsend	03497300	USGS	106	T	1964-82
		USGS		C	1982
Little River near Maryville	03498500	TVA	269	C	1967-68
		USGS		C,S	1979-82
Tennessee River at Fort Loudon Dam (tailwater)	03499510	TVA	9,550	C	1975-80
Little Tennessee River at Calderwood Dam	03518210	TVA	1,977	C	1977-80
Little Tennessee River below Chilhowee Dam	03518300	TVA	1,987	T	1964-78
Tellico River at Tellico Plains	03518500	TVA	118	T	1964-78
		TVA		C	1969-70, 1973-76
		USGS		C,S	1979-82
Little Tennessee River at McGhee	03519500	TVA	2,443	T	1963
Little Tennessee River near Centersville	03519740	TVA		T	1976-79
Clinch River above Tazewell	03528000	TVA	1,474	T	1962-66, 1971-75
		TVA		C	1971-80

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi ²)	Type of record	Period of record (water years)
Powell River near Arthur	03532000	TVA	685	C,S	1965, 1969-72, 1974-82
		TVA		T	1963-66, 1971-75
Ollis Creek at Ivydell	03532190	TVA	13.3	C	1974-78
Clinch River below Norris Dam	03533000	TVA	2,913	C	1968-70, 1972-80
Clinch River at Coal Creek	03533500	TVA	2,921	T	1976-79
Clinch River near Clinton	03534100	TVA	2,980	C	1971-74, 1977
Clinch River at Edgemoor	03534900	TVA	3,089	C	1969-78
Bullrun Creek near Halls Crossroads	03535000	USGS	68.5	T	1967-74
Clinch River near Eaton Crossroads	03535915	TVA	3,346	T	1963-79
Poplar Creek near Oak Ridge	03538225	USGS	82.5	C,S	1961-65, 1979-81
		USGS		T	1962-65
East Fork Poplar Creek near Oak Ridge	03538250	USGS	19.5	T	1962-68
Bear Creek near Oak Ridge	03538275	USGS	7.15	T	1962-63
Emory River near Wartburg	03538500	TVA	83.2	C	1965-68, 1975-76
Obed River near Lancing	03539800	TVA	518	T	1965-66
		TVA		C	1965-68
Crooked Fork near Wartburg	03539860	TVA	50.3	C	1965-68
		USGS		C,S	1979-81
Crab Orchard Creek near Deermont	03540100	TVA	33.7	C	1966-68
		TVA		T	1967-68
		USGS		C,S	1979-81
Emory River at Oakdale	03540500	TVA	764	C,S	1965-67, 1974-81
Tennessee River at Watts Bar Dam (tailwater)	03543005	USGS	17,310	B,C,S,T	1975-86
		USGS		T,C	1976-81
Richland Creek near Dayton	03544500	TVA	50.2	C	1966-67
		USGS		C,S	1979-82
Hiwassee River near Wetmore	03557050	TVA	1,233	C	1973-74, 1976
Hiwassee River at Patty	03557400	TVA	1,358	T	1976-78
Hiwassee River near Benton	03557405	TVA	1,362	C	1978-80
Ocoee River at Parksville	03564500	TVA	595	C	1971-72, 1976-80
Oostanaula Creek near Sweetwater	03565428	USGS		C,S,T	1993-95
Oostanaula Creek below Johnson Branch near Athens	03565430	USGS		C,S,T	1993-95
Oostanaula Creek near Sanford	03565500	USGS	57.0	C,S	1979-82
Tennessee River at Sequoyah Nuclear Plant	03566404	TVA	20,630	C	1975-78
Tennessee River near Harrison Bay State Park	03566405	TVA	20,650	C	1969-73
Tennessee River at Chickamauga Dam (tailwater)	03566510	TVA	20,790	C	1975-80
Tennessee River at Nickajack Dam (tailwater gage)	03570525	TVA	21,849	C	1975-78
Sequatchie River near Dunlap	03570835	TVA	292	C	1975-78
Sequatchie River near Whitwell	03571000	TVA	402	T	1962-71
		TVA		C	1965, 1970, 1974-75
		USGS		C,S	1979-82
Sequatchie River at Whitwell Waterworks near Whitwell	03571200	TVA	410	C	1975-79
Tennessee River at South Pittsburg	03571850	USGS	22,640	T	1975-82
		USGS		C	1975-79, 1981
		USGS		B,C,S,T	1974-86
Bradley Creek Tributary at AEDC near Manchester	03578455	USGS		T	1993-95
Brumalow Creek at AEDC near Manchester	03578600	USGS		T	1993-95
Rowland Creek at AEDC near Manchester	03578970	USGS		T	1993-95
Elk River near Estill Springs	03579100	TVA	275	C	1974-78
		TVA		T	1971-77

DISCONTINUED SURFACE-WATER QUALITY STATIONS--Continued

[Agency designations: USGS, U.S. Geological Survey; TVA, Tennessee Valley Authority.
Type of record: (B) biological, (C) chemical, (S) sediment, (T) temperature.]

Station name	Station number	Agency	Drainage area (mi ²)	Type of record	Period of record (water years)
Boiling Fork Creek near Decherd	03580110	TVA	37.7	T	1975-77
Elk River below Tims Ford Dam	03580750	TVA	534	T	1971-79
		TVA		C	1966-67, 1973
					1975-80
Elk River above Fayetteville	03582000	TVA	827	C	1974, 1977-80
		USGS		T	1961-64
Elk River at Fayetteville	03582400	TVA	895	T	1976-78
Cane Creek near Fayetteville	03582600	TVA	106	T	1969-73
Richland Creek near Pulaski	03584000	TVA	366	T	1965-73
Elk River near Prospect	03584500	TVA	1,784	T	1961-64
Shoal Creek at Iron City	03588500	TVA	348	C,S	1974-80
		USGS		C,S	1980-83
Tennessee River at Pickwick Landing Dam	03593005	USGS	32,820	C,T	1976-82
Beech River near Chesterfield	03594439	TVA	121	C	1969-71, 1976
Duck River below Manchester	03596000	TVA	107	C	1967-68, 1970-71
		TVA		T	1976-80
		USGS		C,S	1975, 1979-83
Duck River at Normandy	03596500	TVA	208	T	1969-75
Duck River at Shelbyville Waterworks	03597850	TVA	425	C	1975-80
Duck River near Shelbyville	03598000	TVA	481	T	1961-64, 1976-78
Duck River near Columbia	03599460	TVA	1,176	T	1974-82
Duck River at Columbia Waterworks	03599482	TVA	1,195	C	1975-80
Piney River at Vernon	03602500	TVA	193	T	1964-67
Duck River above Hurricane Mills	03603000	TVA	2,557	C	1966-67, 1974-80
		TVA		T	1961-64
Buffalo River near Flat Woods	03604000	TVA	447	T	1964-68
Buffalo River near Lobelville	03604500	TVA	707	T	1961-64
		TVA		C	1967-68, 1973-76
Trace Creek above Denver	03605555	USGS	31.9	C	1979-83
Big Sandy River at Bruceton	03606500	TVA	205	T	1971-78
		TVA		C	1968, 1970-72
		USGS		C,S	1976, 1979-83
North Reelfoot Creek at Clayton	07026360	USGS	54.7	C,S	1982-84
North Reelfoot Creek at State Hwy 22 near Clayton	07026370	USGS	56.3	C,S	1983-89
Obion River at Hwy 51 near Obion	07026040	USGS	1,875	C,S,T	1975-95
South Reelfoot Creek near Clayton	07026400	USGS	38.6	C,S	1984-89
Bayou Du Chien near Walnut Log	07026695	USGS	27.8	C,T	1986-88
Indian Creek near Samburg	07026795	USGS	8.01	C,S	1982-84
Reelfoot Lake Spillway near Tiptonville	07027002	USGS	240	C,T	1975-76, 1986-88
Mosses Creek near Pocahontas	07029410	USGS	47.6	C,S	1961, 1963, 1977-78
Hatchie River near Lacy	07029425	USGS	1,033	C,S	1977-78
Big Muddy Creek at Stanton	07030010	USGS	84.4	C,S	1977-78
Cane Creek at Ripley	07030100	USGS	33.9	S	1985-87
Cane Creek at Three Point	07030137	USGS	79.8	S	1985-87
Loosahatchie River near Arlington	07030240	USGS	262	C,S	1979-82
Wolf River at Rossville	07030500	USGS	503	C	1961, 1963-68
Nonconnah Creek near Germantown	07032200	USGS	68.2	C,S	1979-82

WATER RESOURCES DATA - TENNESSEE, 2002

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with State, local, and Federal agencies, obtains a large amount of data pertaining to the water resources of Tennessee each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data - Tennessee."

This report consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains discharge records for 89 gaging stations; stage only at 1 gaging station; stage and contents at 32 lakes and reservoirs; water quality for 9 stations, and 15 wells; and water levels at 8 observation wells. Also included are data for 98 crest-stage partial-record stations. Locations of these sites are shown on figures 4 through 6. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and miscellaneous analyses or as seepage investigations.

This series of annual reports for Tennessee began with the 1961 water year with a report that contained only data relating to the quantities of surface water. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several years concurrent with it, water-resources data for Tennessee were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States." For the 1961 through 1970 years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Water of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225.

Publications similar to this report are published annually by the USGS for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report TN-02-1." For archiving and general distribution, the reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (615) 837-4700.

COOPERATION

The USGS and agencies of the State of Tennessee have had cooperative agreements for the systematic collection of streamflow records since 1918, for ground-water levels since 1946, and for water-quality records since 1960. Organizations that assisted in collecting data contained in this report through cooperative agreement with the Survey are:

Athens Utility District
Tennessee Department of Environment and Conservation
Tennessee Department of Transportation
Tennessee Wildlife Resources Agency
Duck River Development Agency
Harpeth Valley Utility District
Hixson Utility District
Savannah Valley Utility District
Cities, Towns, or Counties;
 Alcoa
 Blount
 Camden
 Dickson
 Franklin
 Germantown
 Harriman
 Jackson
 Knox
 Lewisburg
 Lincoln
 Maryville
 Medina
 Memphis
 Metropolitan Government of Nashville and Davidson County
 Murfreesboro
 Rogersville
 Sevierville
 Shelby
 Springfield
 Wartrace

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, Nashville District, the Tennessee Valley Authority, and by the U.S. Department of Energy. All data are published in this report.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The State of Tennessee derives many benefits from an abundance of water found in many streams, rivers, and lakes throughout the area. Excluding the Mississippi River, which flows south along Tennessee's western border, the largest rivers in the State are the Tennessee and Cumberland Rivers. Other large rivers in Tennessee include the Holston, French Broad, Little Tennessee, Ocoee, Elk, Duck, Buffalo, Obion, and Hatchie Rivers. Tennessee shares the benefits of these rivers with neighboring states. Adequate water supplies in the Tennessee's river systems are dependent upon rainfall and wise management by Federal, State, and local government agencies. Streamflow data, as contained in this report, is an integral part of the wise management of the water resources of the State.

Rainfall across Tennessee was significantly above average during the calendar year 2002. Memphis recorded about 20 inches above the long-term average rainfall of 53 inches, both Nashville and Knoxville were about 10 inches above the long-term normal of 48 inches. A comparison of annual mean discharges for the 2002 water year with means for the period-of-record for unregulated streams in Tennessee indicates that streamflow recovered during the 2002 water year and was higher than the 2001 water year across the State. Streamflows in the western parts of Tennessee were well above long-term averages and almost twice the long-term average in many streams. In the central portions of Tennessee, streams and rivers were flowing at average to slightly above average rates during water year 2002. Only the streams and rivers in eastern Tennessee, particularly those flowing out of Virginia and North Carolina, were still below the long-term average flow rates. Although, recovering significantly, the dry conditions that existed for several years in this area will require continued robust rainfall conditions to return to normal.

The western portion of Tennessee was affected by several significant flood-producing storms during the 2002 water year. A general rainstorm occurring during late November and early December 2001 produced flooding that was generally a 25-year event. However, several streams had flooding that approached the 50-year recurrence interval. The National Weather Service in Memphis recorded a single-day total of over 6 inches in late November and over 70 inches of rainfall for the calendar year 2002, the third wettest year in over 100 years of record.

The central portion of Tennessee was struck by unusually heavy flooding January 23-25, 2002. The storm that produced the heavy flooding was a general rainstorm with an extremely intense leading edge that passed through middle Tennessee in the early morning hours of January 23, 2002. The storm dropped over 7 inches of rainfall and produced heavy flash flooding and generalized flooding on many rivers and streams throughout the area. Recurrence intervals for this flood ranged from about 10 to 25 years, with a select few streams approaching the 50-year event.

A few areas of middle Tennessee and most of the upper eastern parts of the State experienced a significant flood during the period from March 17-19, 2002. The storm producing this flood was a general rainstorm with intense embedded cells that produced in excess of 6 inches of rain through many watersheds in the area. In middle Tennessee, Jones Creek in Dickson County recorded a 50-year flood. In east Tennessee, many streams in the Clinch River and Holston River basins were out of their banks and recorded 10- to 20-year flood events. The Clinch River recorded a flood in excess of the 30-year recurrence interval. Most of the runoff in the Clinch River came from Virginia which received heavier rainfall amounts than Tennessee during this storm.

Ground Water

Ground-water levels at key aquifers throughout Tennessee were affected by rainfall during the 2002 water year. Ground-water levels are recorded continuously at a series of observation wells across the State (fig. 1). Water levels at well Hm:O-15 (Hamilton County) are representative of conditions in Middle and East Tennessee. Water levels were near normal during the last 8 months of the year. Wells in Hamilton County (Hm:O-15), Lauderdale County (Ld:F-4), and Shelby County (Sh:P-99) show water levels recovering with increase rain during 2002.

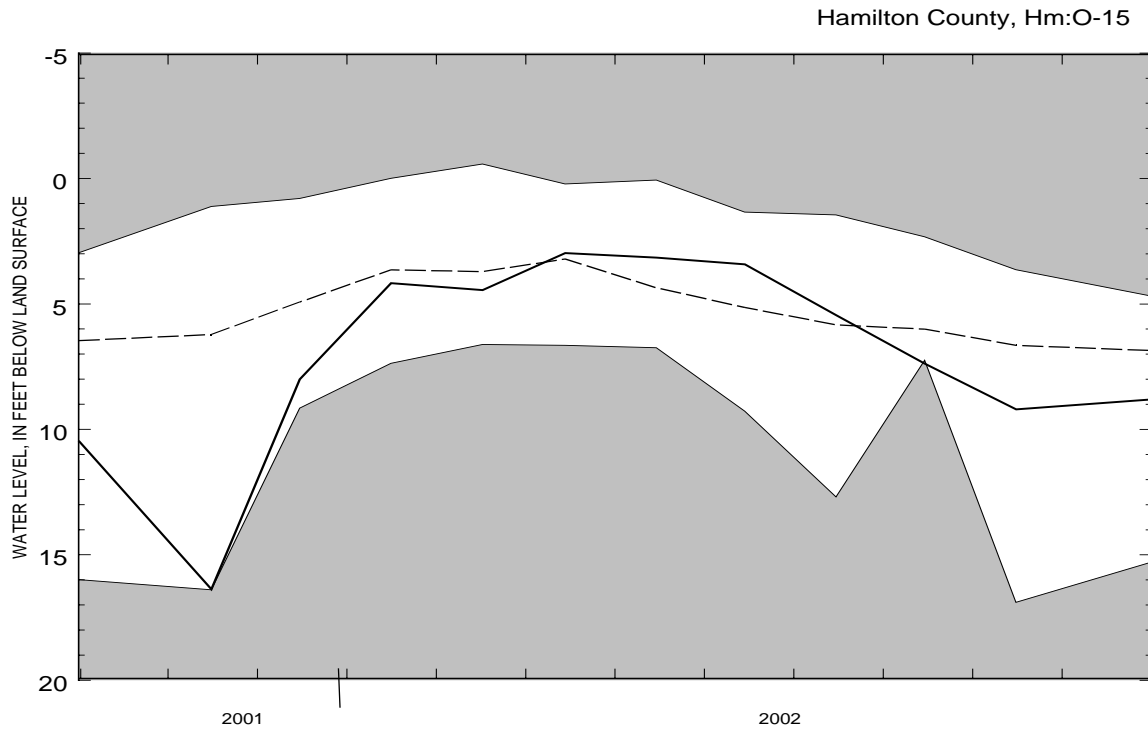
Water levels recorded from wells throughout Middle and East Tennessee generally respond faster with larger fluctuations than wells drilled into the sand and gravel aquifers of West Tennessee. Observation wells in Shelby County show that ground water levels are strongly affected by ground-water withdrawals by the City of Memphis and surrounding communities. At well Sh:Q-1 (fig. 2), near downtown Memphis, water levels declined steadily since 1972, although a slower rate of decline began in 1988. The decline in ground-water levels in the Memphis area are not indicative of a reduction in the available ground-water supplies, but the response of the aquifer to additional withdrawals. Hydrographs showing lowest monthly water levels for each of the continuous recording observation wells are included in the body of this report.

Water Quality

Water-quality data were collected at 8 surface-water sites and 28 ground-water sites during the 2002 water year. Many of these sites were sampled as part of the U.S. Geological Survey's National Water-Quality Assessment (NAWQA) Program. Other water-quality activities included:

- o Operation of four continuous monitors to measure temperature, dissolved oxygen, pH, and specific conductance in the Cumberland River Basin in support of the U.S. Army Corps of Engineers, Nashville District operations.
- o Operation of a continuous monitor to measure temperature, dissolved oxygen, pH, and specific conductance in the West Fork Stones River in support of a water-resources program in cooperation with the City of Murfreesboro, Tennessee.
- o Operation of a continuous monitor to measure temperature and dissolved oxygen in the Duck River in cooperation with the Duck River Development Agency.
- o Operation of a two continuous monitors to measure temperature, dissolved oxygen, pH, and specific conductance in the Cumberland River at Nashville in cooperation with the Davidson County Metropolitan area, Tennessee.
- o Quarterly samples at three sites for the determination of water quality in Carter's Creek in Maury County, Tennessee.

Data collected for several NAWQA sites identified low-level concentrations of pesticides in surface water and shallow ground water.



HYDROGRAPH EXPLANATION	
NOTE: ALL GROUND-WATER LEVELS SHOWN REPRESENT MONTHLY MAXIMUM DEPTH TO WATER	SHADED LINES SHOW EXTREMES FOR LOWEST WATER LEVEL RECORDED DURING THE MONTH FOR THE PERIOD OF RECORD
—— CURRENT WATER YEAR DATA	
- - - MEDIAN FOR PERIOD OF RECORD	

Figure 1. Ground-water levels for the 2002 water year compared to the maximum, minimum, and median water levels for the period of record.

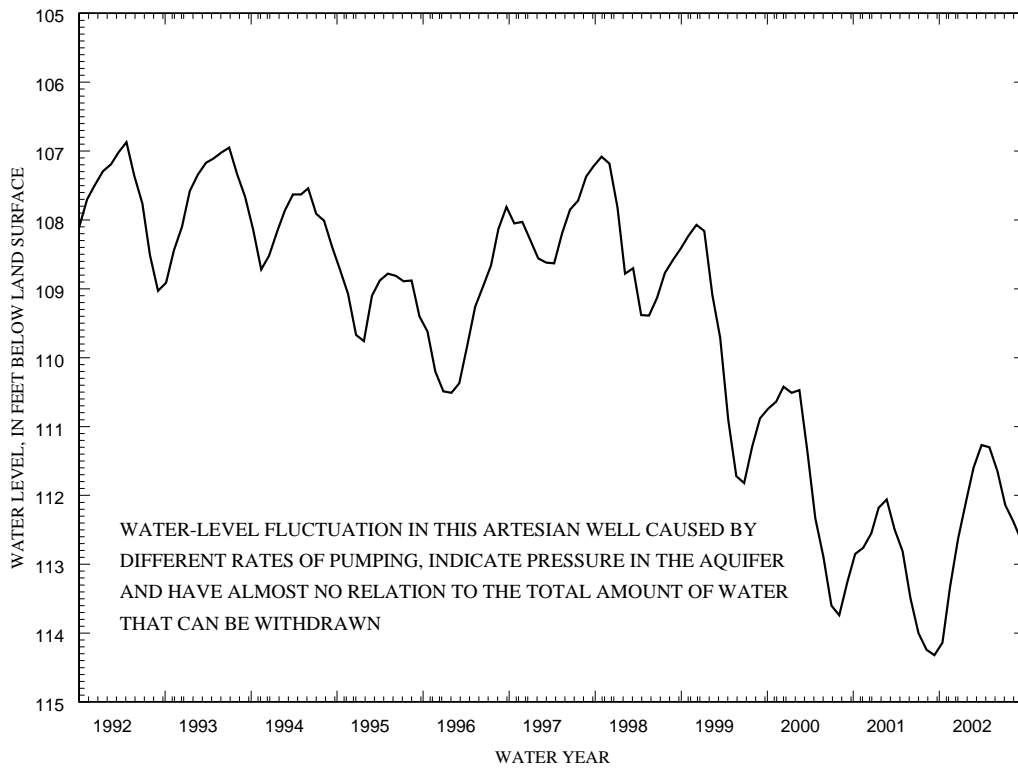


Figure 2. Hydrograph of Shelby County showing long-term decline in the water-level.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the affects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande. From 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at <http://bqs.usgs.gov/acidrain/>.

Data from the network, as well as information about individual sites, are available through the World Wide Web at:

<http://nadp.sws.uiuc.edu/>

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at http://water.usgs.gov/nawqa/nawqa_html

Radiochemical Program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface water. In addition to the surface water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF RECORDS

The surface-water and ground-water records published in this report are for the 2002 water year that began October 1, 2001, and ended September 30, 2002. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 4 through 7. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for surface-water stations and the "latitude-longitude" system is used for wells.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

Each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete number for each station such as 03540500...., which appears just to the left of the station name, includes the 2-digit part number "03" plus the multi-digit downstream order number "540500...." This downstream numbering system is used in most cases; however, in some cases latitude and longitude numbers are assigned to hydrologic stations and partial-record stations as a means of identification (See Numbering System for Wells).

Numbering system for wells

Downstream order station numbers are not assigned to wells. The well numbering system of the USGS is based on the grid system of latitude and longitude. The system provides the geographic location of the well and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells within a 1-second grid.

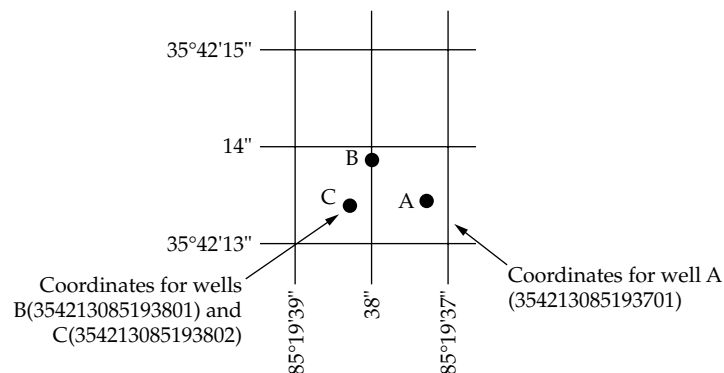


Figure 3.--System for numbering wells (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relation between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the USGS. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water Resources Investigations (TWRI's), Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed from gage heights and rating tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are used in applying the gage heights to the rating tables. The shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and comparable records of discharge for other stations in the same or nearby basins.

At some stream-gaging stations, the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed. If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileage is that determined and used by the USGS, Tennessee Valley Authority, U.S. Army Corps of Engineers, or other agencies using methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see "Definition of terms"), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily discharge will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent times. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum line (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS ____-____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar water year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. When the designated period is not the same as the station period of record published in the manuscript, values and dates of occurrence for daily and instantaneous extremes outside the designated period will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnote.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be available before this statistic is published for the designated period.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

MAXIMUM PEAK FLOW.--The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.--The maximum instantaneous peak stage occurring for the water year or for the designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF (AC-FT).--Indicates the depth, in acre-feet, to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

ANNUAL RUNOFF (CFSM).--Indicates the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the year.

ANNUAL RUNOFF (INCHES).--Indicates the depth to which the drainage area would be covered if all the runoff for the year were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures to more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Records of discharge, not published by the USGS, are collected in Tennessee at several sites by the U.S. Army Corps of Engineers and Tennessee Valley Authority. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites as well as an index of records of discharge collected by other agencies but not published by the USGS. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurements notes, gage-height records, temperature measurements, and rating tables are on file in the Tennessee District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are collected at or near stream-gaging stations. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in the publications on "Techniques of Water-Resources Investigations," Book 1, Chapter D2; Book 3, Chapter A1, A3, and A4; and Book 9, Chapters A1-A9." These references are listed in the PUBLICATIONS OF TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (NASQAN) (see definitions) are obtained from at least several verticals.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Present data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the USGS will begin using new trace-element protocols in the near future.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the USGS District Office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, maximum, minimum, and mean temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office and are also published in this report.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar water discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, temperature recorder, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made in the U.S. Geological Survey's distributed data system, NWIS, and subsequently to its web-base National data system, NWISWeb [<http://water.usgs/nwis/nwis>]. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of the U.S. Geological Survey water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure the most recent updates. Updates to NWISWeb are currently made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colon count)
L	Biological organisms count less than 0.5 percent (organisms may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant
V	Analyte was detected in both the environmental sample and the associated blanks.

Dissolved Trace-Element Concentrations

*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter ($\mu\text{g/L}$) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the $\mu\text{g/L}$ level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Water Quality-Control Data

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples that may be collected by this district are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analyses of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collect in this district are:

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental

sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for and environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well -established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Change in National Trends Network Procedures

*NOTE.--Samples handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study is available from the NADP Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (Telephone: 217-333-7873).

Records of Ground-Water Levels

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of three parts, the station description, the data table of water levels observed during the current water year, and a graph of the water levels for the current water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of the well description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the USGS and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. A hydrograph for a selected period of record follows each water-level table.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

EXPLANATION OF PRECIPITATION-QUALITY RECORDS

Collection of the Data

The precipitation-quality records in this report are for one site operated by the USGS in the National Trends Network. Field measurements of pH and specific conductance of weekly composite precipitation samples and daily precipitation quantity are made. Other chemical analyses for all National Trends Network sites are performed by the Central Analytical Laboratory of the Illinois Water Survey. A numerical agency code (17003) has been assigned to the Illinois Water-Survey for data storage purposes.

ACCESS TO WATSTORE DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed at

<http://water.usgs.gov>

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page)

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistics.)

Aroclor is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine

atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell.

Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3 \pi r^3 \quad \text{cone } 1/3 \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial

structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily-record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that

has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria are commonly found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) concentration value is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an 'E' code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte

is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Fire algae (*Pyrrophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum,

the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating “moss” in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA web site:
<http://www.co-ops.nos.noaa.gov/tideglos.html>

Hilsenhoff's Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \sum \frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_0 e^{-\lambda L},$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA web site: <http://www.co-ops.nos.noaa.gov/tideglos.html>*

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to pro-

vide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. See NOAA web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See "North American Vertical Datum of 1988")

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

Nekton are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or volatile mass of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in

the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

ClassificationSize (mm)Method of analysis

Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a

year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also "Plankton")

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive

disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices

such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October

1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of pre-cipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical

current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0 no gravel or larger substrate	3 26-50 percent
1 > 75 percent	4 5-25 percent
2 51-75 percent	5 < 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate

matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of “suspended, recoverable” constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also “Sediment”)

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydro-logic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent’s physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology

used, is required to judge when the results should be reported as “total.” (Note that the word “total” does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a

cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The USGS publishes a series of manuals titled the "Techniques of Water-Resources Investigations" that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.

Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at <http://water.usgs.gov/pubs/twri/>. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone "1-888-ASK-USGS" for current prices, and refer to the title, book number, section number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Other products can be viewed online at <http://www.usgs.gov/sales.html>, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—Influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS-TWRI book 1, chap. D1. 1975. 65 p.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS-TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS-TWRI book 2, chap. D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS-TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS-TWRI book 2, chap. E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS-TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS-TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS-TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS-TWRI book 3, chap. A9. 1989. 27 p.
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- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 3, chap. A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS-TWRI book 3, chap. A12. 1986. 34 p.

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- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS-TWRI book 3, chap. A13. 1983. 53 p.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS-TWRI book 3, chap. A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS-TWRI book 3, chap. A15. 1984. 48 p.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS-TWRI book 3, chap. A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS-TWRI book 3, chap. A17. 1985. 38 p.
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- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS-TWRI book 3, chap. A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS-TWRI book 3, chap. A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS-TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS-TWRI book 3, chap. B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS-TWRI book 3, chap. B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS-TWRI book 3, chap. B3. 1980. 106 p.
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- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS-TWRI book 3, chap. B6. 1987. 28 p.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS-TWRI book 3, chap. B7. 1992. 190 p.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS-TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS-TWRI book 3, chap. C1. 1970. 55 p.
- 3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS-TWRI book 3, chap. C2. 1999. 89 p.
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Book 4. Hydrologic Analysis and Interpretation**Section A. Statistical Analysis**

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS-TWRI book 4, chap. A1. 1968. 39 p.
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- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS-TWRI book 4, chap. B2. 1973. 20 p.
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Section D. Interrelated Phases of the Hydrologic Cycle

- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS-TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis**Section A. Water Analysis**

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS-TWRI book 5, chap. A1. 1989. 545 p.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS-TWRI book 5, chap. A2. 1971. 31 p.

TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY--Continued

- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS-TWRI book 5, chap. A3. 1987. 80 p.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greenson, editors: USGS-TWRI book 5, chap. A4. 1989. 363 p.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS-TWRI book 5, chap. A5. 1977. 95 p.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS-TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS-TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques**Section A. Ground Water**

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS-TWRI book 6, chap. A1. 1988. 586 p.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS-TWRI book 6, chap. A2. 1991. 68 p.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS-TWRI book 6, chap. A3. 1993. 136 p.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS-TWRI book 6, chap. A4. 1992. 108 p.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS-TWRI book 6, chap. A5. 1993. 243 p.
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- 6-A7. *User's guide to SEAWAT: A computer program for simulation of three-dimensional variable-density ground-water flow*, by Weixing Guo and Christian D. Langevin: USGS-TWRI book 6, chap. A7. 2002. 77 p.

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- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS-TWRI book 7, chap. C1. 1976. 116 p.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS-TWRI book 7, chap. C2. 1978. 90 p.
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Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS-TWRI book 8, chap. A1. 1968. 23 p.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS-TWRI book 8, chap. A2. 1983. 57 p.

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- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS-TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A1. 1998. 47 p.
- 9-A2. *National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibbs, and R.T. Iwatsubo: USGS-TWRI book 9, chap. A2. 1998. 94 p.
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- 9-A6. *National field manual for the collection of water-quality data: Field measurements*, edited by F.D. Wilde and D.B. Radtke: USGS-TWRI book 9, chap. A6. 1998. Variously paginated.
- 9-A7. *National field manual for the collection of water-quality data: Biological indicators*, edited by D.N. Myers and F.D. Wilde: USGS-TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.
- 9-A8. *National field manual for the collection of water-quality data: Bottom-material samples*, by D.B. Radtke: USGS-TWRI book 9, chap. A8. 1998. 48 p.
- 9-A9. *National field manual for the collection of water-quality data: Safety in field activities*, by S.L. Lane and R.G. Fay: USGS-TWRI book 9, chap. A9. 1998. 60 p.

Map number	Station number and name	Page	Map number	Station number and name	Page
1 03408500	NEW RIVER AT NEW RIVER, TN	42-43	47 03539600	DADDY'S CREEK NEAR HEBBERTSBURG	196-197
2 03409500	CLEAR FORK NEAR ROBBINS, TN	44-45	48 03539778	CLEAR CREEK AT LILLY BRIDGE NEAR LANCING	198-199
3 03410210	SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD	46-49	49 03539800	OBED RIVER NEAR LANCING, TN	202-203
4 03414500	EAST FORK OBEY RIVER NEAR JAMESTOWN	50-51	50 03540500	EMORY RIVER AT OAKDALE	204-205
5 03415000	WEST FORK OBEY RIVER NEAR ALPINE	52-53	51 03566000	HIWASSEE RIVER AT CHARLESTON	206-207
6 03418070	ROARING RIVER ABOVE GAINESBORO	60-61	52 035661285	NORTH MOUSE CR NR ROCKY MTN. HOLLOW NR ATHENS	208-209
7 03421000	COLLINS RIVER NEAR MCMINNVILLE	68-69	53 03568000	TENNESSEE RIVER AT CHATTANOOGA	210-211
8 03424730	SMITH FORK AT TEMPERANCE HALL	70-71	54 03571000	SEQUATCHIE RIVER NEAR WHITWELL	212-213
9 03426310	CUMBERLAND RIVER AT OLD HICKORY DAM	72-73	55 03578000	ELK RIVER NEAR PELHAM	214-215
10 03426385	MANSKER CREEK ABOVE GOODLETTSVILLE	82-83	56 03579040	SPRING CREEK OFF SPRING CREEK RD AT AEDC	216-217
11 03426470	DRY CREEK NEAR EDENWOLD	84-85	57 03584020	RICHLAND CREEK AT HWY 64 NEAR PULASKI	218-219
12 03427500	EAST FORK RIVER NEAR LASCASSAS	86-87	58 03588500	SHOAL CREEK AT IRON CITY	220-221
13 03428200	WEST FORK STONES RIVER AT MURFREESBORO	88-89	59 03593500	TENNESSEE RIVER AT SAVANNAH	222-223
14 03430147	STONERS CREEK NEAR HERMITAGE	96-97	60 03595100	LITTLE DUCK RIVER SOUTHEAST OF MANCHESTER	224
15 03430550	MILL CREEK NEAR NOLENSVILLE	98-99	61 03596100	CRUMPTON CREEK AT RUTLEDGE FALLS	225
16 03431060	MILL CREEK AT THOMPSON LANE NEAR WOODBINE	100-101	62 03597210	GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE	226-227
17 03431300	BROWNS CR AT STATE FAIRGROUND AT NASHVILLE	108-109	63 03597590	WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE	228-229
18 034315005	CUMBERLAND RIVER AT WOODLAND ST AT NASHVILLE	110-111	64 03597860	DUCK RIVER AT SHELBYVILLE	230
19 03431599	WHITES CREEK NEAR BORDEAUX	118-119	65 03598000	DUCK RIVER NEAR SHELBYVILLE	236-237
20 03431700	RICHLAND CREEK AT CHARLOTTE AVE AT NASHVILLE	120-121	66 03598250	NORTH FORK CREEK NEAR POPLINS CROSSROADS	238-239
21 03432350	HARPETH RIVER AT FRANKLIN	122-123	67 03599500	DUCK RIVER AT COLUMBIA	240-241
22 034323531	HARPETH RIVER TRIB AT MACK HATCHER PKWY.	124-126	68 03600088	CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK	246-247
23 03432387	SOUTH PRONG SPENCER CREEK NEAR FRANKLIN	128-129	69 03601990	DUCK RIVER AT HWY 100 AT CENTERVILLE	250-251
24 03432390	SPENCER CREEK NEAR FRANKLIN	130-131	70 03602219	PINEY RIVER AT CEDAR HILL	252
25 03432400	HARPETH RIVER BELOW FRANKLIN	132-133	71 03602500	PINEY RIVER AT VERNON	254-255
26 03433500	HARPETH RIVER AT BELLEVUE	134-135	72 03604000	BUFFALO RIVER NEAR FLATWOODS	256-257
27 03434500	HARPETH RIVER NEAR KINGSTON SPRINGS	136-137	73 03605078	CYPRESS CREEK AT CAMDEN, TN	258
28 03435305	RED RIVER BELOW HWY 161 AT BARREN PLAINS	144-145	74 036065000	BIG SANDY RIVER AT BRUCETON	260-261
29 03435970	MILLERS CREEK AT TURNERSVILLE	146-147	75 07024305	BEAVER CREEK AT HWY 22 BYPASS NEAR HUNTINGDON	270-271
30 03436100	RED RIVER AT PORT ROYAL	148-149	76 070245000	SOUTH FORK OBION RIVER NEAR GREENFIELD	272-273
31 03436690	YELLOW CREEK AT ELLIS MILLS	150-151	77 07025400	NORTH FORK OBION RIVER NEAR MARTIN	274-275
32 03455000	FRENCH BROAD RIVER NEAR NEWPORT	156-157	78 07026040	OBION RIVER AT US HWY 51 NEAR OBION	276-277
33 03461500	PIGEON RIVER AT NEWPORT	158-159	79 07027000	REELFOOT LAKE NEAR TIPTONVILLE	278-279
34 03465500	NOLICHUCKY RIVER AT EMBREEVILLE	160-161	80 07027720	SOUTH FOR FORKED DEER RIVER NEAR OWL CITY	280-281
35 03466208	BIG LIMESTONE CREEK NEAR LIMESTONE	162-163	81 07028960	MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW	282-283
36 03467609	NOLICHUCKY RIVER NEAR LOWLAND	168-169	82 07029500	HATCHIE RIVER AT BOLIVAR	284-285
37 03469175	LITTLE PIGEON RIVER ABOVE SEVIERVILLE	174-175	83 07030240	LOOSAHATCHIE RIVER NEAR ARLINGTON	286-287
38 03491000	BIG CREEK NEAR ROGERSVILLE	176-177	84 07030392	WOLF RIVER AT LAGRANGE	288-289
39 03497300	LITTLE RIVER ABOVE TOWNSEND	178-179	85 07030500	WOLF RIVER AT ROSSVILLE	292-293
40 03498500	LITTLE RIVER NEAR MARYVILLE	180-181	86 07031650	WOLF RIVER AT GERMANTOWN	294-295
41 03498850	LITTLE RIVER NEAR ALCOA	182-183	87 07031692	FLETCHER CREEK AT SYCAMORE VIEW	296-303
42 03518500	TELLICO RIVER AT TELLICO PLAINS	184-187	88 07031740	WOLF RIVER AT HOLLYWOOD STREET AT MEMPHIS	308-309
43 03528000	CLINCH RIVER ABOVE TAZEWEEL	188-189	89 07032200	NONCONNAH CREEK NEAR GERMANTOWN	310-311
44 03532000	POWELL RIVER NEAR ARTHUR	190-191			
45 03535400	BEAVER CREEK AT SOLWAY	192-193			
46 03538235	EAST FORK POPLAR CR AT BEAR CR RD AT OAK RIDGE	194-195			

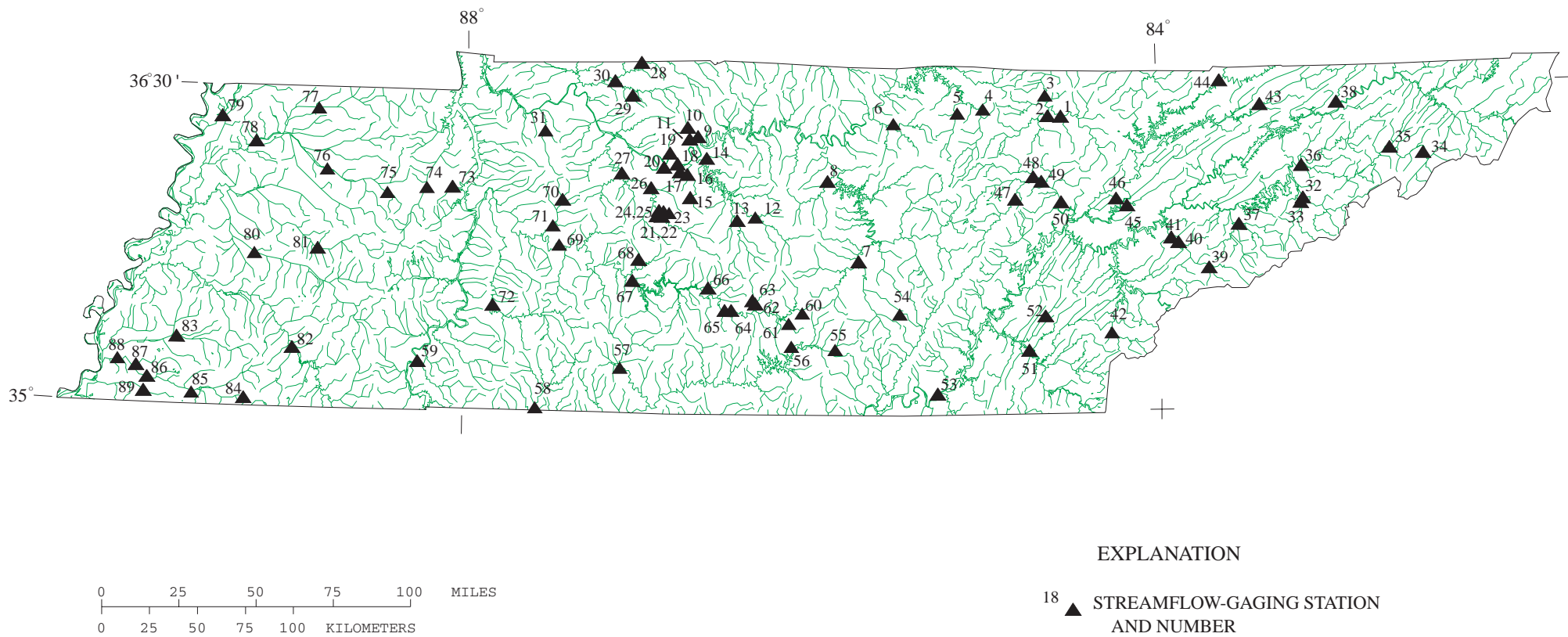


Figure 4. Location of streamflow-gaging stations in Tennessee.

Map number	Station number and name	Page
1 03409000	WHITE OAK CREEK NEAR SUNBRIGHT	312
2 03416000	WOLF RIVER NEAR BYRDSTOWN	312
3 03418201	DOE CREEK AT GAINESBORO	312
4 03419200	CANE CREEK NEAR SPENCER	312
5 03421200	CHARLES CREEK NEAR MCMINNVILLE	313
6 03424900	MULHERRIN CREEK NEAR GORDONSVILLE	313
7 03425040	PEYTON CREEK NEAR MONOVILLE	313
8 03425365	SECOND CREEK NEAR WALNUT GROVE	313
9 03425637	STATION CAMP CREEK AT COTTONTOWN	313
10 03426800	EAST FORK STONES RIVER AT WOODBURY	313
11 03426874	BRAWLEYS FORK BELOW BRADYVILLE	313
12 034269424	REED CREEK NEAR BRADYVILLE	313
13 03427500	EAST FORK STONES RIVER NEAR LASCASSAS	314
14 03427690	BUSHMANN CREEK AT PITTS LANE FORD NEAR COMPTON	314
15 03428043	LYTLE CREEK SANBYRNE DRIVE AT MURFREESBORO	314
16 03428276	UNNAMED SINK NEAR ALMAVILLE	314
17 03428500	WEST FORK STONES RIVER NEAR SMYRNA	314
18 03428513	UNNAMED SINK ON I-840 AT LEANNA	314
19 03428515	UNNAMED SINK AT LEANNA	315
20 03430118	MCCRORY CREEK AT IRONWOOD DRIVE AT DONELSON	315
21 03430400	MILL CREEK AT NOLENSVILLE	315
22 03431000	MILL CREEK NEAR ANTIOCH	315
23 03431040	SEVENMILE CREEK AT BLACKMAN ROAD	315
24 03431062	MILL CREEK TRIB AT GLENROSE AVENUE AT WOODBINE	315
25 03431120	WEST FK BROWNS CR @ GEN. BATES DR @ NASHVILLE	316
26 03431242	EAST FORK BROWNS CREEK AT 100 OAKS MALL AT NASHVILLE	316
27 03431340	BROWNS CREEK AT FACTORY STREET AT NASHVILLE	316
28 03431490	PAGES BRANCH AT AVONDALE	316
29 03431550	EARTHMAN FORK AT WHITES CREEK	316
30 03431581	EWING CREEK BELOW KNIGHT ROAD NEAR BORDEAUX	316
31 03431677	SUGARTREE CR @ YMCA ACCESS RD @ GREEN HILLS	316
32 03431679	SUGARTREE CR @ ABBOTT MARTIN RD @ GREEN HILLS	317
33 03431800	SYCAMORE CREEK NEAR ASHLAND CITY	317
34 03432470	MURFREES FORK ABOVE BURWOOD	317
35 03432925	LITTLE HARPETH RIVER AT GRANNY WHITE PIKE	317
36 03434590	JONES CREEK NEAR BURNS	317
37 034350021	BARTONS CREEK NEAR CUMBERLAND FURNACE	317
38 034350035	LOUISE CREEK NEAR GREYS CHAPEL	317
39 034351105	HONEY RUN CREEK NEAR CROSS PLAINS	318
40 034351113	HONEY RUN CREEK BELOW CROSS PLAINS	318
41 03435739	BEAVER DAM CREEK ABOVE SPRINGFIELD	318
42 03435770	SULPHUR FORK RED RIVER ABOVE SPRINGFIELD	318
43 03435930	SPRING CREEK TRIB NEAR CEDAR HILL	318
44 03436082	SULPHUR FORK CREEK ABOVE PORT ROYAL	318
45 03436130	PASSENGER CREEK NEAR SANGO	318
46 03436505	CUMMINGS CREEK NEAR DOTSONVILLE	318
47 03436700	YELLOW CREEK NEAR SHILOH	319
48 03461230	CANEY CREEK NEAR COSBY	319
49 03465607	CHEROKEE CREEK NEAR EMBREEVILLE	319

Map number	Station number and name	Page
50 03465780	CLEAR FORK NEAR FAIRVIEW	319
51 03466890	LICK CREEK NEAR ALBANY	319
52 03467480	BENT CREEK AT TAYLOR GAP	319
53 03467992	CARTER BRANCH NEAR WHITE PINE	319
54 03467993	CEDAR CREEK NEAR VALLEY HOME	319
55 03467998	SINKING FORK AT WHITE PINE	320
56 03470215	DUMPLIN CREEK AT MT. HAREB	320
57 03476960	INDIAN CREEK AT CHILDRESS	320
58 03487550	REEDY CREEK AT OREBANK	320
59 03490522	FORGEY CREEK AT ZION HILL	320
60 03491540	ROBERTSON CREEK NEAR PERSIA	320
61 03494714	DRY LAND CREEK TRIB NEAR NEW MARKET	320
62 03494990	FLAT CREEK AT LUTTRELL	321
63 03498010	LITTLE ELLEJOY CREEK AT PROSPECT	321
64 034991105	STOKES CREEK AT PICKENS GAP RD NR HIGH BLUFF	321
65 03499175	TEN MILE CREEK AT ROBINSON ROAD NEAR KNOXVILLE	321
66 03519610	BAKER CREEK TRIB NEAR BINFIELD	321
67 03527800	BIG WAR CREEK AT LUTHER	321
68 03528390	CROOKED CREEK NEAR MAYNARDVILLE	321
69 03534000	COAL CREEK AT LAKE CITY	321
70 03535180	WILLOW FORK NEAR HALLS CROSSROAD	321
71 035351830	BEAVER CREEK NR WILLOW FORK AT HALLS CROSSROAD	322
72 03535195	BEAVER CREEK AT BRICKYARD ROAD NEAR POWELL	322
73 03535617	CONNER CREEK AT STEELE ROAD NEAR SOLWAY	322
74 03555900	COKER CREEK NEAR IRONSBURG	322
75 03566420	WOLFTEVER CREEK NEAR OOLTEWAH	322
76 03566599	NORTH CHICKAMAUGA CR AT GREENS MILL NR HIXSON	322
77 03569168	STRINGERS BRANCH AT LEAWOOD DRIVE AT RED BANK	322
78 03571500	LITTLE SEQUATCHIE RIVER AT SEQUATCHIE	322
79 03571730	STANDIFER BRANCH AT JASPER	323
80 03571800	BATTLE CREEK NEAR MONTEAGLE	323
81 03583300	RICHLAND CREEK NEAR CORNERSVILLE	323
82 03594153	INDIAN CREEK AT HWY 64 NEAR OLIVEHILL	323
83 035944242	OWL CREEK AT LEXINGTON	323
84 03597300	WARTRACE CREEK ABOVE BELL BUCKLE	323
85 035994430	FOUNTAIN CREEK NEAR CULLEOKA	324
86 03602170	WEST PINEY RIVER NEAR DICKSON	324
87 03604090	COON CREEK ABOVE CHOP HOLLOW NEAR HOHENWALD	324
88 03604580	BLUE CREEK NEAR NEW HOPE	324
89 03605555	TRACE CREEK ABOVE DENVER	324
90 03605880	CANE CREEK NEAR STEWART	324
91 07024225	NEIL DITCH NEAR HENRY	324
92 07024370	LITTLE REEDY CREEK NEAR HUNTINGDON	324
93 07024760	SPRING CREEK NEAR GREENFIELD	325
94 07025500	NORTH FORK OBION RIVER NEAR UNION CITY	325
95 07028505	NORTH FORK FORKED DEER RIVER AT TRENTON	325
96 07029090	LEWIS CREEK NEAR DYERSBURG	325
97 07029900	HATCHIE RIVER AT SUNNYHILL	325
98 07030100	CANE CREEK AT RIPLEY	325

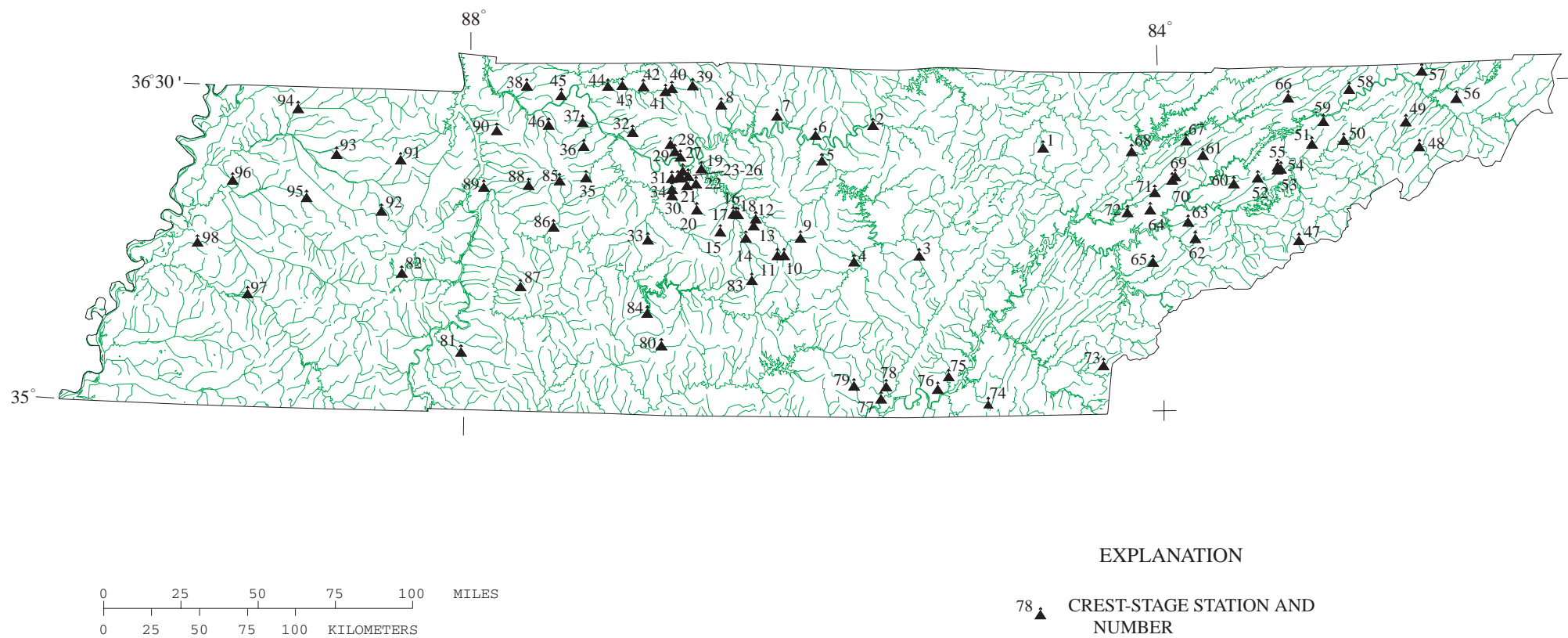


Figure 5. Location of crest-stage stations in Tennessee.

Map number	Station number and name	Page	Map number	Station number and name	Page
1	03417500 CUMBERLAND RIVER AT CELINA	54-59	16	353839089493500 LD:F	372
2	03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM	62-67	17	350034086422800 LI:G-1	373
3	03426310 CUMBERLAND RIVER AT OLD HICKORY DAM	74-80	18	353922083345600 SV:E-2	374
4	03428200 WEST FORK STONES RIVER AT MURFREESBORO	90-95	19	350857089591401 SH:P-99	375
5	03431091 CUMBERLAND RIVER AT OMAHUNDRO WATER PLANT	102-107	20	351113089583101 SH:P-151	376
6	03431514 CUMBERLAND RIVER NEAR BORDEAUX	112-117	21	351102089582701 SH:P-152	377
7	03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM	138-143	22	350900089482300 SH:Q-1	378
8	03466208 BIG LIMESTONE CREEK NR LIMESTONE	164-166	23	352042089523401 SH:U-100	379
9	03467609 NOLICHUCKY RIVER NR LOWLAND	170-172	24	352042089523402 SH:U-101	380
10	03597860 DUCK RIVER AT SHELBYVILLE	231-234	25	352042089523403 SH:U-102	381
11	03600085 CARTERS CREEK AT PETTY LANE NR CARTERS CREEK	242-243	26	351917089515101 SH:V-211	382
12	03600086 CARTERS CREEK TRIB NR CARTERS CREEK	244-245	27	351916089515101 SH:V-212	383
13	03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK	248-249	28	351917089515102 SH:V-222	384
14	350750085045802 HM:O-19	371			
15	351428085003600 HM:O-15	370			

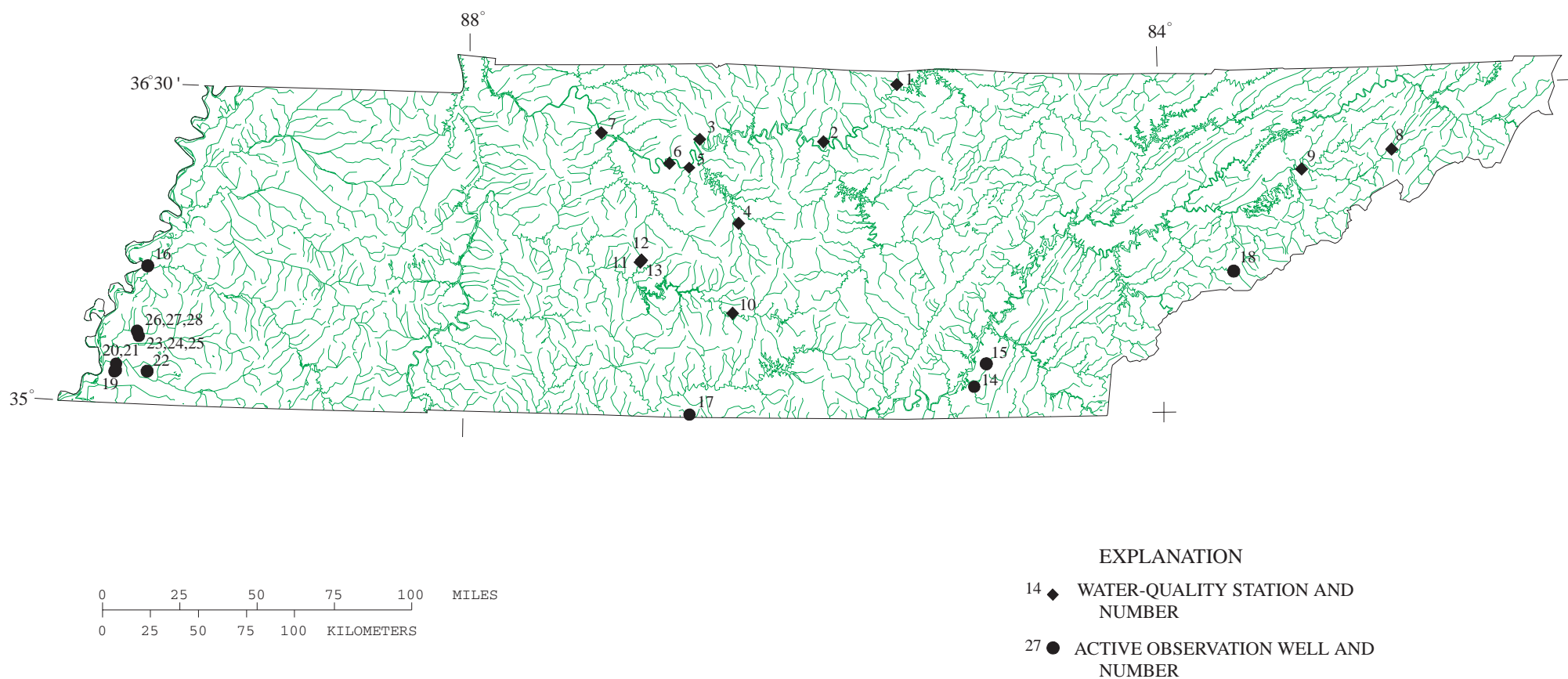


Figure 6. Location of water-quality stations and active observation wells in Tennessee.

CUMBERLAND RIVER BASIN

03408500 NEW RIVER AT NEW RIVER, TN

LOCATION.--Lat 36°23'08", long 84°33'17", Scott County, Hydrologic Unit 05130104, on left bank at town of New River, 700 ft downstream from Phillips Creek, 1,000 ft downstream from bridge on U.S. Highway 27, 1.7 mi downstream from Brimstone Creek, and at mile 8.6.

DRAINAGE AREA.--382 mi².

PERIOD OF RECORD.--August 1934 to September 1991, October 1991 to September 1998, as stage only. October 1998 to current year. Gage-height records collected in this vicinity 1908-52 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 1436: Drainage area. WDR TN-73: 1939(M), 1951(M), 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,092.67 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,700 ft³/s, May 27, 1973, gage height, 37.91 ft, from high water mark in gage well, from rating curve extended above 27,000 ft³/s on basis of slope-area and contracted-opening measurements of peak flow; no flow part of each day Aug. 12-14, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 23, 1929, reached a stage of 41.2 ft, discharge, 74,700 ft³/s, estimated, based on field survey at old U.S. Weather Bureau gage, 1,200 ft upstream at datum 3.41 ft higher.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	0130	25,900	22.70	Mar 17	1730	18,100	18.50
Jan 25	0500	19,800	19.45	Mar 18	1430	*29,300	*24.37

Minimum discharge, 0.50 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	27	366	205	729	251	6150	1040	102	60	27	7.4
2	23	24	263	182	930	247	2330	1650	89	46	41	5.9
3	21	23	194	178	819	258	1490	2030	79	37	29	5.9
4	19	23	151	158	780	262	1080	1520	69	26	21	5.9
5	18	23	125	143	650	233	865	1180	68	21	16	6.0
6	30	22	108	156	570	214	722	900	93	17	12	5.5
7	26	21	103	174	790	204	610	738	186	16	9.6	4.2
8	39	21	195	145	1230	198	537	654	145	14	7.6	3.2
9	45	20	656	140	1180	203	511	525	94	12	5.7	2.4
10	31	20	600	159	1020	273	595	461	73	9.9	4.8	1.8
11	21	20	893	417	910	278	496	420	58	42	4.2	1.2
12	16	19	839	575	759	278	450	347	46	78	3.5	0.82
13	15	19	717	515	667	330	442	437	41	70	2.8	0.62
14	19	19	2840	433	574	349	432	810	49	522	2.4	1.8
15	27	18	2160	377	507	343	410	579	62	363	2.4	4.2
16	73	18	1090	322	461	530	377	447	46	183	7.0	4.3
17	61	18	763	283	421	10400	346	364	38	104	10	3.9
18	43	18	932	274	372	21900	368	480	33	71	4.4	4.3
19	35	18	890	2740	335	5360	352	419	28	55	4.5	18
20	27	18	698	4510	339	2420	317	314	25	49	11	16
21	25	18	522	1920	419	1780	290	270	22	43	17	104
22	23	18	417	1170	366	1300	270	232	19	37	17	131
23	22	18	408	8350	334	1040	245	203	17	35	18	278
24	19	20	957	18300	314	877	225	178	16	70	13	157
25	24	581	830	12700	299	743	690	157	18	68	9.9	82
26	25	501	650	3220	299	746	829	139	38	41	12	102
27	25	250	522	1800	307	947	645	157	36	30	35	616
28	40	169	427	1270	276	801	558	186	76	25	27	846
29	40	124	362	993	---	713	510	243	102	22	17	361
30	35	136	302	807	---	654	402	161	93	20	12	197
31	31	---	249	675	---	3210	---	121	---	19	9.2	---
TOTAL	924	2244	20229	63291	16657	57342	23544	17362	1861	2205.9	413.0	2977.34
MEAN	29.81	74.80	652.5	2042	594.9	1850	784.8	560.1	62.03	71.16	13.32	99.24
MAX	73	581	2840	18300	1230	21900	6150	2030	186	522	41	846
MIN	15	18	103	140	276	198	225	121	16	9.9	2.4	0.62
CFSM	0.08	0.20	1.71	5.34	1.56	4.84	2.05	1.47	0.16	0.19	0.03	0.26
IN.	0.09	0.22	1.97	6.16	1.62	5.58	2.29	1.69	0.18	0.21	0.04	0.29

03408500 NEW RIVER AT NEW RIVER, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 2002, BY WATER YEAR (WY)

MEAN	137.7	491.1	1065	1393	1458	1539	1074	671.4	345.5	274.6	160.3	126.8
MAX	1035	2683	3359	4206	3891	4371	2564	3095	2850	1986	1159	1235
(WY)	1990	1958	1991	1937	1939	1975	1977	1973	1989	1967	1942	1989
MIN	0.64	2.35	43.9	42.1	112	530	216	60.6	4.54	3.99	5.71	2.68
(WY)	1953	1940	1966	1981	1941	1985	1942	1936	1936	1944	1936	1953

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

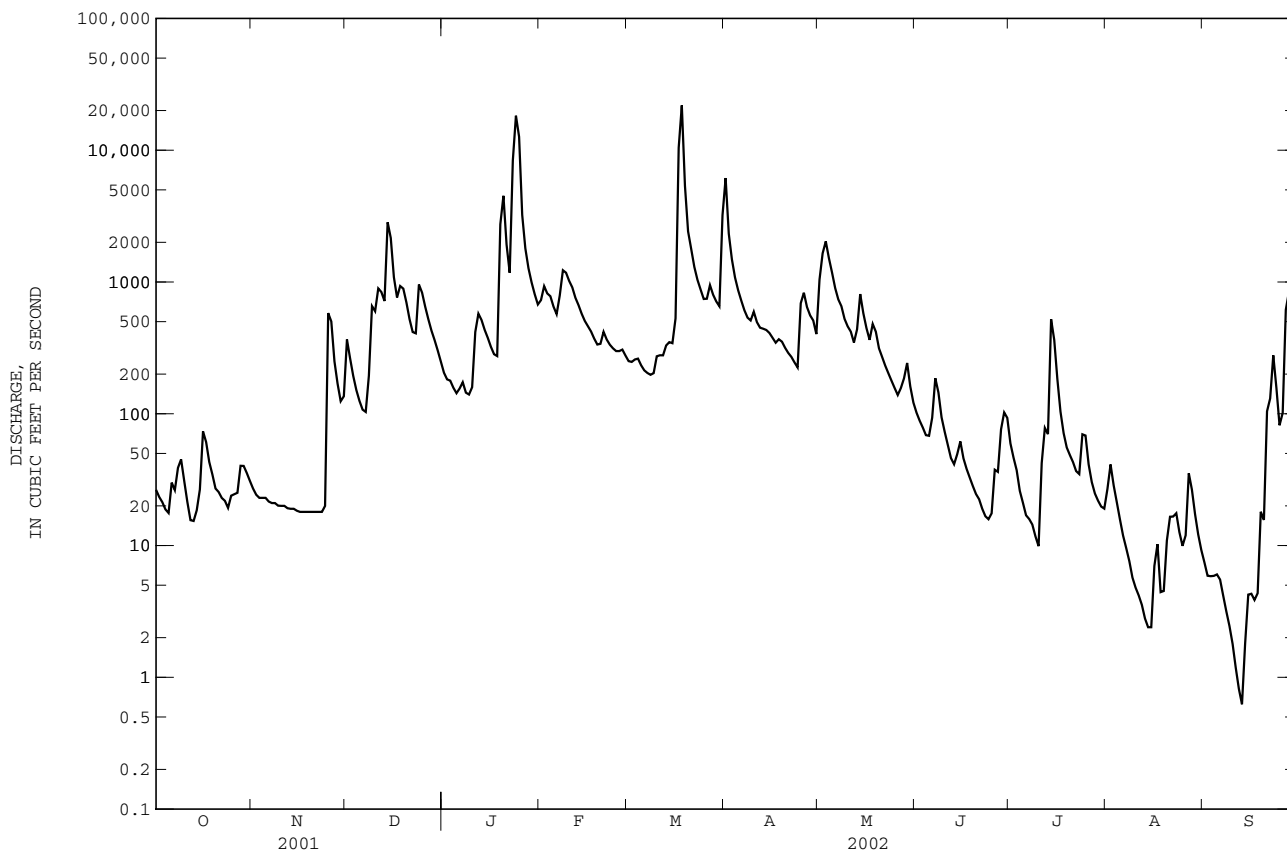
WATER YEARS 1934 - 2002

ANNUAL TOTAL	157545	209050.24	
ANNUAL MEAN	431.6	572.7	726.0
HIGHEST ANNUAL MEAN			1350
LOWEST ANNUAL MEAN			55.5
HIGHEST DAILY MEAN	12000	Feb 17	21900
LOWEST DAILY MEAN	15	Oct 13	0.62
ANNUAL SEVEN-DAY MINIMUM	18	Nov 15	1.7
MAXIMUM PEAK FLOW			29300
MAXIMUM PEAK STAGE			24.37
INSTANTANEOUS LOW FLOW			0.50
ANNUAL RUNOFF (CFSM)	1.13	1.50	1.90
ANNUAL RUNOFF (INCHES)	15.34	20.36	25.82
10 PERCENT EXCEEDS	948	938	1620
50 PERCENT EXCEEDS	136	158	257
90 PERCENT EXCEEDS	23	12	17

a Highest daily mean and instantaneous peak flows from rating curve extended above 27,000 ft³/s on basis of slope-area and contracted opening measurements of peak flow.

b Maximum stage from high-water mark in gage well.

c Minimum discharge also occurred Aug. 13-15, 1944.



CUMBERLAND RIVER BASIN

03409500 CLEAR FORK NEAR ROBBINS, TN

LOCATION.--Lat 36°23'18", long 84°37'49", Scott County, Hydrologic Unit 05130104, on right bank 300 ft downstream from Burnt Mill Bridge, 3.3 mi northwest of Robbins, and at mile 3.7.

DRAINAGE AREA.--272 mi².

PERIOD OF RECORD.--October 1930 to September 1971, July 1975 to September 1991, October 1991 to September 1998, stage only, October 1998 to current year. Published as Clear Fork River near Robbins, October 1951 to September 1954.

REVISED RECORDS.--WSP 1306: 1931(M), 1936-37(M), 1943-44(M). WSP 1436: Drainage area. WSP 1910: 1935(M).

GAGE.--Data collection platform. Datum of gage is 1,081.46 ft, Sandy Hook datum. Prior to Aug. 10, 1940, nonrecording gage at site 300 ft upstream at datum 1.00 ft higher.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 23, 1929 reached a stage of 22.1 ft, former site and datum, from information by local residents, and flood of May 27, 1973, reached a stage of 18.92 ft, present site and datum, from floodmark; discharge 35,700 ft³/s, from rating curve extended above 14,000 ft³/s, on basis of slope-area measurement at gage height 18.5 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	0330	17,000	13.70	Apr 1	0000	7,940	9.76
Mar 18	0900	*19,800	*14.62				

Minimum discharge, 3.8 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	131	125	466	143	5070	1020	83	52	66	23
2	11	11	129	131	561	143	2080	1730	71	43	54	22
3	9.1	12	101	104	461	154	1240	1150	62	33	42	20
4	7.7	9.6	82	102	444	158	860	923	54	27	35	18
5	6.6	9.1	69	89	379	140	660	898	110	23	29	15
6	10	9.2	60	87	336	130	527	701	489	20	24	13
7	10	9.2	59	99	509	124	438	559	778	17	19	10
8	8.0	9.1	120	105	977	119	376	1620	378	15	15	8.5
9	16	8.7	463	90	955	119	339	957	216	15	12	7.3
10	13	8.7	381	90	798	133	325	698	146	18	9.7	6.5
11	9.7	8.7	417	264	681	137	289	606	109	14	8.3	5.5
12	8.9	8.5	435	484	541	130	259	488	85	12	7.3	4.8
13	8.7	8.2	351	397	452	147	249	582	72	21	6.6	4.0
14	8.6	8.1	1180	315	374	193	270	1460	83	33	5.8	3.9
15	8.4	7.8	1270	260	321	177	265	873	149	117	5.6	4.5
16	14	7.8	630	209	290	190	232	592	105	96	6.1	4.5
17	24	7.8	424	180	260	9160	203	436	82	63	13	4.3
18	17	8.0	417	171	221	15900	192	530	69	51	56	5.0
19	14	8.3	377	1580	193	5100	207	532	59	40	43	5.9
20	14	8.3	297	3340	199	2280	181	373	53	32	37	10
21	13	7.9	230	1510	264	1960	163	295	46	29	32	110
22	12	7.8	187	862	230	1270	151	242	37	33	29	163
23	12	8.0	217	5440	195	919	136	203	33	35	24	89
24	11	11	600	15600	181	725	130	173	33	48	30	68
25	12	647	502	10100	170	578	1080	148	41	169	32	52
26	12	487	370	3010	167	712	1210	128	34	168	26	82
27	12	192	287	1510	173	1290	721	223	70	102	32	652
28	32	123	234	1000	159	902	538	193	85	73	43	425
29	21	91	194	743	---	720	507	142	70	59	76	228
30	15	93	161	581	---	591	401	117	64	51	45	139
31	12	---	129	470	---	2730	---	98	---	51	30	---
TOTAL	395.7	1846.8	10504	49048	10957	47174	19299	18690	3766	1560	893.4	2203.7
MEAN	12.76	61.56	338.8	1582	391.3	1522	643.3	602.9	125.5	50.32	28.82	73.46
MAX	32	647	1270	15600	977	15900	5070	1730	778	169	76	652
MIN	6.6	7.8	59	87	159	119	130	98	33	12	5.6	3.9
CFSM	0.05	0.23	1.25	5.82	1.44	5.59	2.37	2.22	0.46	0.19	0.11	0.27
IN.	0.05	0.25	1.44	6.71	1.50	6.45	2.64	2.56	0.52	0.21	0.12	0.30

03409500 CLEAR FORK NEAR ROBBINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	91.04	287.7	638.2	917.0	1025	999.7	720.3	459.9	210.8	159.7	101.7	93.74
MAX	747	1303	2470	3418	2794	2757	1968	2043	1742	1122	940	974
(WY)	1990	1958	1991	1937	1939	1963	1977	1984	1989	1967	1971	1982
MIN	1.84	4.97	28.6	32.4	141	333	152	64.1	8.29	6.40	8.07	2.92
(WY)	1954	1954	1964	1981	1941	1969	1942	1948	1988	1944	1987	1953

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1931 - 2002

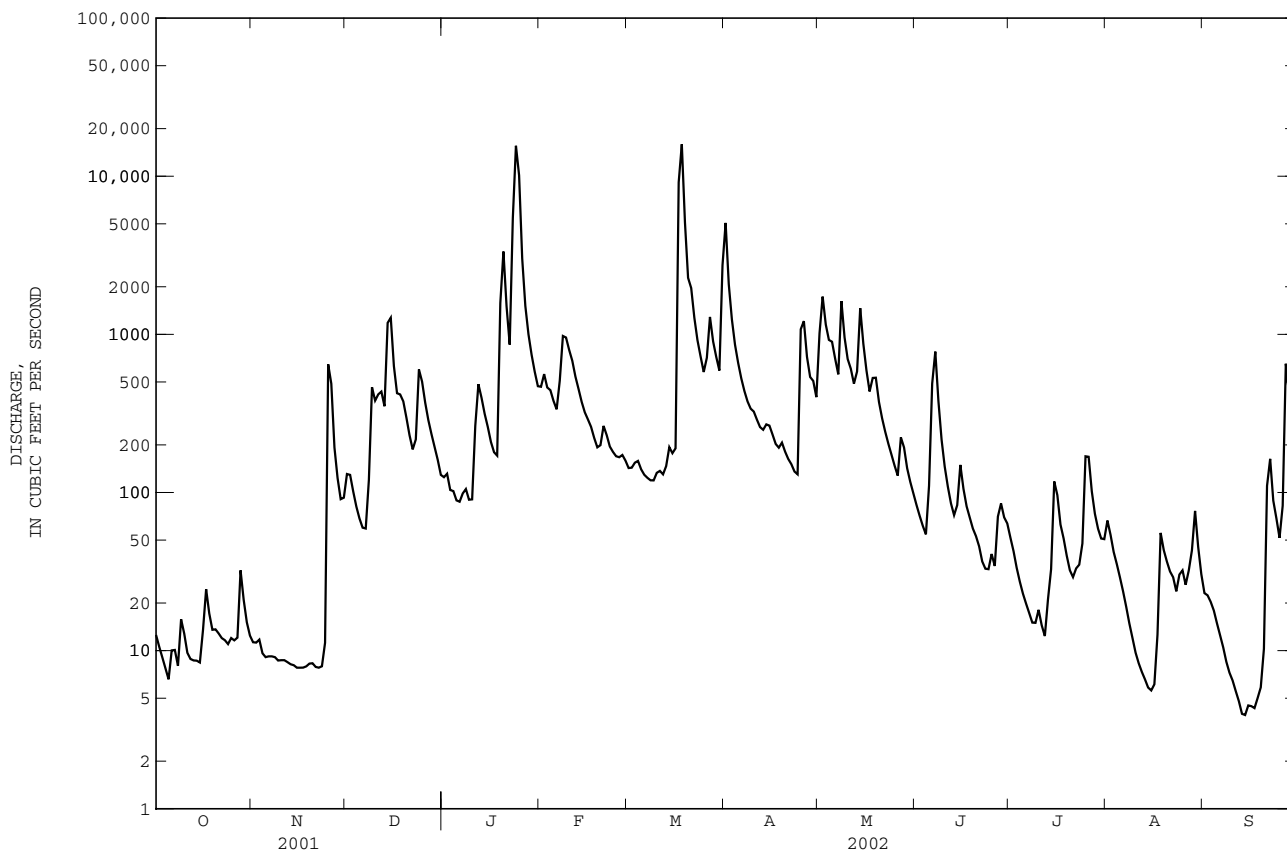
ANNUAL TOTAL	107503.0	166337.6	
ANNUAL MEAN	294.5	455.7	469.9
HIGHEST ANNUAL MEAN			864
LOWEST ANNUAL MEAN			113
HIGHEST DAILY MEAN	9630	Feb 17	15900
LOWEST DAILY MEAN	4.0	Sep 18	3.9
ANNUAL SEVEN-DAY MINIMUM	5.1	Sep 14	4.4
MAXIMUM PEAK FLOW			19800
MAXIMUM PEAK STAGE			14.64
INSTANTANEOUS LOW FLOW			c3.8
ANNUAL RUNOFF (CFSM)	1.08	1.68	1.73
ANNUAL RUNOFF (INCHES)	14.70	22.75	23.47
10 PERCENT EXCEEDS	609	883	1090
50 PERCENT EXCEEDS	83	119	155
90 PERCENT EXCEEDS	8.6	8.7	11

a Highest daily mean and instantaneous peak flows from rating curve extended above 14,000 ft³/s on basis of slope-area measurement of peak flow.

b Maximum stage from floodmarks, site and datum then in use.

c Also occurred Sept. 14.

d Also occurred Sept. 20, 21, 1932.



CUMBERLAND RIVER BASIN

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN

LOCATION.--Lat 36°28'38", long 84°40'09", Scott County, Hydrologic Unit 05130104, on left bank at bridge on State Route 297, 1.0 mi above Anderson Branch, 1.3 miles below North White Oak Creek, 10.1 mi southwest of Oneida, and at mi 70.1.

DRAINAGE AREA.--806 mi².

PERIOD OF RECORD.--October 1983 to September 1987. October 1998 to September 1999, May 2001 to current year. Occasional discharge measurements, water years 1961-62, 1979-80, 1991-94.

GAGE.--Water-stage recorder. Datum of gage is 862.79 ft Sandy Hook datum.

REMARKS.--Records good. No daily discharge Oct. 1, 2000 to May 8, 2001. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	0430	43,400	27.51	Apr 1	0215	20,700	19.13
Mar 18	1400	*51,500	*29.94				

Minimum discharge, 20 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	e600	200	258	505	95
2	---	---	---	---	---	---	---	e1000	193	209	283	98
3	---	---	---	---	---	---	---	e500	238	182	244	118
4	---	---	---	---	---	---	---	e400	285	157	1480	132
5	---	---	---	---	---	---	---	e300	258	154	1010	184
6	---	---	---	---	---	---	---	e400	243	208	558	141
7	---	---	---	---	---	---	---	e650	315	220	331	116
8	---	---	---	---	---	---	---	e570	539	192	214	100
9	---	---	---	---	---	---	---	e520	583	167	197	88
10	---	---	---	---	---	---	---	484	430	204	549	78
11	---	---	---	---	---	---	---	427	310	167	542	69
12	---	---	---	---	---	---	---	389	245	166	738	60
13	---	---	---	---	---	---	---	344	207	141	1070	53
14	---	---	---	---	---	---	---	298	182	122	1060	50
15	---	---	---	---	---	---	---	258	180	105	483	48
16	---	---	---	---	---	---	---	231	225	85	274	40
17	---	---	---	---	---	---	---	211	205	69	188	35
18	---	---	---	---	---	---	---	192	172	58	150	32
19	---	---	---	---	---	---	---	176	149	47	128	33
20	---	---	---	---	---	---	---	166	133	54	111	59
21	---	---	---	---	---	---	---	159	122	57	101	72
22	---	---	---	---	---	---	---	172	134	65	93	109
23	---	---	---	---	---	---	---	283	234	70	85	99
24	---	---	---	---	---	---	---	342	285	80	83	93
25	---	---	---	---	---	---	---	269	210	75	90	106
26	---	---	---	---	---	---	---	240	167	73	89	124
27	---	---	---	---	---	---	---	214	150	61	88	121
28	---	---	---	---	---	---	---	228	235	77	89	101
29	---	---	---	---	---	---	---	268	317	1610	85	85
30	---	---	---	---	---	---	---	253	242	3430	78	73
31	---	---	---	---	---	---	---	223	---	1190	76	---
TOTAL	---	---	---	---	---	---	---	10767	7388	9753	11072	2612
MEAN	---	---	---	---	---	---	---	347.3	246.3	314.6	357.2	87.07
MAX	---	---	---	---	---	---	---	1000	583	3430	1480	184
MIN	---	---	---	---	---	---	---	159	122	47	76	32
CFSM	---	---	---	---	---	---	---	0.43	0.31	0.39	0.44	0.11
IN.	---	---	---	---	---	---	---	0.50	0.34	0.45	0.51	0.12

e Estimated

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	352.7	1324	1635	1928	2516	2054	1784	1773	617.7	517.1	395.4	129.7
MAX	870	3506	2921	4553	3114	3648	3690	5631	1630	1758	1302	454
(WY)	1986	1987	1984	1999	1985	1984	2000	1984	1999	1999	1985	1986
MIN	43.4	49.4	196	602	1715	1104	539	347	230	124	61.4	25.9
(WY)	1999	1999	2000	1986	2000	1985	1986	2001	1984	2000	1987	1999

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1984 - 2001

ANNUAL TOTAL	319081	41592	
ANNUAL MEAN	1165	271.8	1186
HIGHEST ANNUAL MEAN			1744
LOWEST ANNUAL MEAN			272
HIGHEST DAILY MEAN			272
LOWEST DAILY MEAN	27600	Apr 4	49300
ANNUAL SEVEN-DAY MINIMUM	21	Sep 21	18
MAXIMUM PEAK FLOW	25	Sep 16	20
MAXIMUM PEAK STAGE			56100
INSTANTANEOUS LOW FLOW			31.22
ANNUAL RUNOFF (CFSM)	1.44	0.34	17
ANNUAL RUNOFF (INCHES)	14.73	1.92	1.47
10 PERCENT EXCEEDS	3070	546	19.99
50 PERCENT EXCEEDS	472	182	2750
90 PERCENT EXCEEDS	49	67	478
			49

CUMBERLAND RIVER BASIN

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	76	388	327	1540	428	14300	2030	226	231	149	90
2	55	72	409	304	2000	424	5630	3970	202	185	142	74
3	50	71	286	300	1740	464	3680	3670	182	162	136	66
4	46	70	222	278	1620	481	2800	3160	179	142	112	59
5	42	66	188	251	1340	416	2150	2690	293	119	93	50
6	93	63	168	254	1120	375	1750	2060	1040	101	77	44
7	93	63	162	283	1570	356	1410	1640	1470	90	64	39
8	70	62	386	254	2830	342	1170	2740	695	88	53	36
9	68	60	1630	248	2820	338	1050	2040	429	82	46	33
10	81	59	1360	255	2420	415	1110	1500	288	75	41	29
11	67	57	1540	671	2130	464	954	1250	222	78	38	25
12	59	56	1740	1420	1760	436	853	1000	184	98	32	22
13	57	55	1310	1200	1470	533	827	1270	165	168	26	21
14	64	54	4070	937	1200	644	877	3050	165	491	23	22
15	77	54	4460	771	1000	616	846	2030	213	584	23	27
16	78	54	2480	634	899	661	759	1360	194	393	88	32
17	120	55	1660	545	804	20400	678	980	162	246	80	29
18	112	54	1690	516	691	43300	642	1260	144	191	86	26
19	97	54	1710	3780	604	14100	677	1270	130	162	101	25
20	88	55	1300	9700	607	5990	603	862	124	149	98	27
21	81	54	910	4340	755	4820	552	697	135	145	80	307
22	75	53	709	2900	704	3570	520	594	115	142	78	316
23	70	54	730	12400	603	2820	466	518	104	139	78	329
24	66	65	1860	37400	557	2250	433	450	105	276	75	323
25	81	1100	1860	26500	525	1860	1810	383	113	288	88	200
26	90	1420	1360	7910	518	2090	2670	330	126	344	78	299
27	78	518	1000	4170	539	3200	1770	368	185	239	75	1240
28	72	302	793	3160	487	2490	1350	449	267	188	227	1600
29	100	216	656	2420	---	2050	1200	400	294	160	166	724
30	91	215	539	1940	---	1800	941	337	285	139	127	426
31	82	---	423	1560	---	6520	---	263	---	150	107	---
TOTAL	2366	5207	37999	127628	34853	124653	54478	44621	8436	6045	2687	6540
MEAN	76.32	173.6	1226	4117	1245	4021	1816	1439	281.2	195.0	86.68	218.0
MAX	120	1420	4460	37400	2830	43300	14300	3970	1470	584	227	1600
MIN	42	53	162	248	487	338	433	263	104	75	23	21
CFSM	0.09	0.22	1.52	5.11	1.54	4.99	2.25	1.79	0.35	0.24	0.11	0.27
IN.	0.11	0.24	1.75	5.89	1.61	5.75	2.51	2.06	0.39	0.28	0.12	0.30

03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	313.2	1160	1576	2241	2336	2335	1788	1732	575.6	476.8	361.1	139.5
MAX	870	3506	2921	4553	3114	4021	3690	5631	1630	1758	1302	454
(WY)	1986	1987	1984	1999	1985	2002	2000	1984	1999	1999	1985	1986
MIN	43.4	49.4	196	602	1245	1104	539	347	230	124	61.4	25.9
(WY)	1999	1999	2000	1986	2002	1985	1986	2001	1984	2000	1987	1999

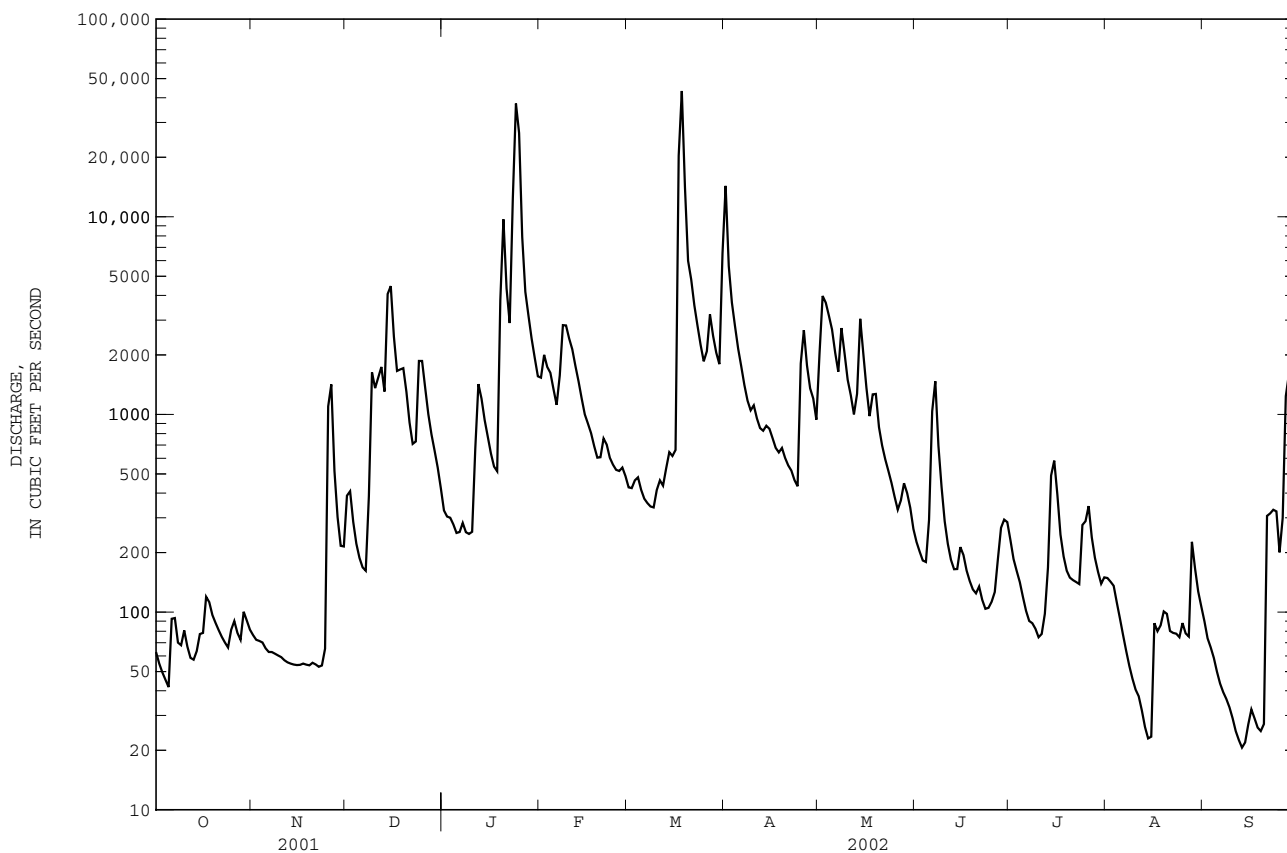
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1984 - 2002

ANNUAL TOTAL	87164	455513	
ANNUAL MEAN	355.8	1248	
HIGHEST ANNUAL MEAN			1194
LOWEST ANNUAL MEAN			1744
HIGHEST DAILY MEAN	4460	Dec 15	43300
LOWEST DAILY MEAN	32	Sep 18	21
ANNUAL SEVEN-DAY MINIMUM	42	Sep 13	25
MAXIMUM PEAK FLOW			51500
MAXIMUM PEAK STAGE			29.94
INSTANTANEOUS LOW FLOW			20
ANNUAL RUNOFF (CFSM)	0.44		1.55
ANNUAL RUNOFF (INCHES)	4.02		21.02
10 PERCENT EXCEEDS	1000		2440
50 PERCENT EXCEEDS	162		327
90 PERCENT EXCEEDS	56		55



CUMBERLAND RIVER BASIN

03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN

LOCATION.--Lat 36°24'58", long 85°01'35", Fentress County, Hydrologic Unit 05130105, on right bank at bridge 200 ft upstream from bridge on State Highway 52, 0.5 mi upstream from Poplar Cove Creek, 5.3 mi west of Jamestown, and at mile 12.7.

DRAINAGE AREA.--202 mi², includes 6.0 mi² without surface drainage.

PERIOD OF RECORD.--October 1942 to September 1991. October 1991 to September 1992, miscellaneous water-quality measurements. October 1992 to September 2000, crest-stage partial record station. October 2000 to current year. Prior to February 1943 monthly discharges only, published in WSP 1306.

REVISED RECORDS.--WSP 1276: 1944, 1946(M). WSP 1506: Drainage area.

GAGE.--Water-stage encoder and satellite telemeter at station. Datum of gage is 680.30 ft, Sandy Hook datum. Feb. 24 to April 7, 1943, nonrecording gage 200 ft upstream at same datum.

REMARKS.--Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,800 ft³/s, May 27, 1973, gage height, 30.46 ft, from rating curve extended above 32,000 ft³/s, on basis of slope-area measurement of peak flow; minimum, 3.6 ft³/s, Sept. 26-28, 1948; minimum gage height, 0.55 ft, Sept. 12-17, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 30.7 ft, from flood profile by U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2300	*23,100	*22.42	Mar 18	0700	21,900	21.82
Jan 24	1330	15,700	18.48	Apr 25	0830	10,000	14.57
Mar 17	1130	21,200	21.50				

Minimum discharge, 6.4 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	27	278	146	415	168	3010	1960	81	34	54	14
2	19	26	225	138	522	167	1380	1500	73	28	44	18
3	19	26	176	132	453	188	916	1140	66	26	35	18
4	18	24	146	120	417	203	680	982	60	24	28	17
5	18	23	127	115	365	190	546	894	57	22	24	14
6	47	22	115	119	319	181	464	686	75	21	21	13
7	29	22	112	127	428	175	394	831	164	19	19	11
8	28	21	408	118	620	167	339	1490	101	18	17	10
9	28	20	897	115	575	163	304	684	73	17	16	9.5
10	24	20	633	135	511	188	276	500	58	19	15	8.9
11	22	20	548	295	483	184	246	426	48	19	13	8.5
12	23	19	473	370	431	182	223	353	42	22	13	8.0
13	24	19	444	340	376	335	212	667	39	34	12	7.5
14	43	19	1260	295	322	437	235	1110	77	42	11	6.8
15	81	19	1050	257	284	426	220	733	81	35	11	6.9
16	82	19	646	218	262	1050	205	527	63	37	14	7.4
17	67	19	495	194	241	11800	373	402	50	29	21	7.2
18	54	18	471	187	211	13600	359	488	43	24	22	7.5
19	46	18	448	1290	190	3010	242	491	37	23	28	8.0
20	41	19	380	1900	198	1860	203	382	32	26	26	8.4
21	36	18	312	1010	247	1580	178	303	28	35	23	23
22	33	17	260	667	229	1070	163	249	26	35	20	27
23	32	18	281	8940	204	811	160	210	24	59	17	30
24	31	25	512	13500	190	659	174	177	28	632	16	22
25	39	875	488	6330	178	550	4930	149	30	308	15	19
26	45	561	402	1890	180	693	1620	127	33	144	17	97
27	49	351	339	1090	197	963	919	140	54	87	19	158
28	42	229	280	777	179	763	740	147	80	65	36	106
29	35	167	240	603	---	640	707	117	54	61	19	73
30	32	198	201	492	---	548	523	103	41	60	15	51
31	29	---	169	416	---	3130	---	90	---	73	13	---
TOTAL	1137	2879	12816	42326	9227	46081	20941	18058	1718	2078	654	815.6
MEAN	36.68	95.97	413.4	1365	329.5	1486	698.0	582.5	57.27	67.03	21.10	27.19
MAX	82	875	1260	13500	620	13600	4930	1960	164	632	54	158
MIN	18	17	112	115	178	163	160	90	24	17	11	6.8
CFSM	0.19	0.49	2.11	6.97	1.68	7.58	3.56	2.97	0.29	0.34	0.11	0.14
IN.	0.22	0.55	2.43	8.03	1.75	8.75	3.97	3.43	0.33	0.39	0.12	0.15

03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	98.18	291.5	627.1	791.7	841.9	881.2	607.1	411.3	178.5	117.3	74.65	77.90
MAX	589	973	2066	2253	1900	2897	1369	1909	682	961	722	494
(WY)	1990	1958	1991	1950	1956	1975	1977	1984	1989	1967	1982	1944
MIN	4.76	8.05	22.1	43.6	161	206	139	66.7	10.9	9.73	10.0	7.18
(WY)	1948	1954	1964	1981	1968	1983	1986	1962	1988	1944	1962	1953

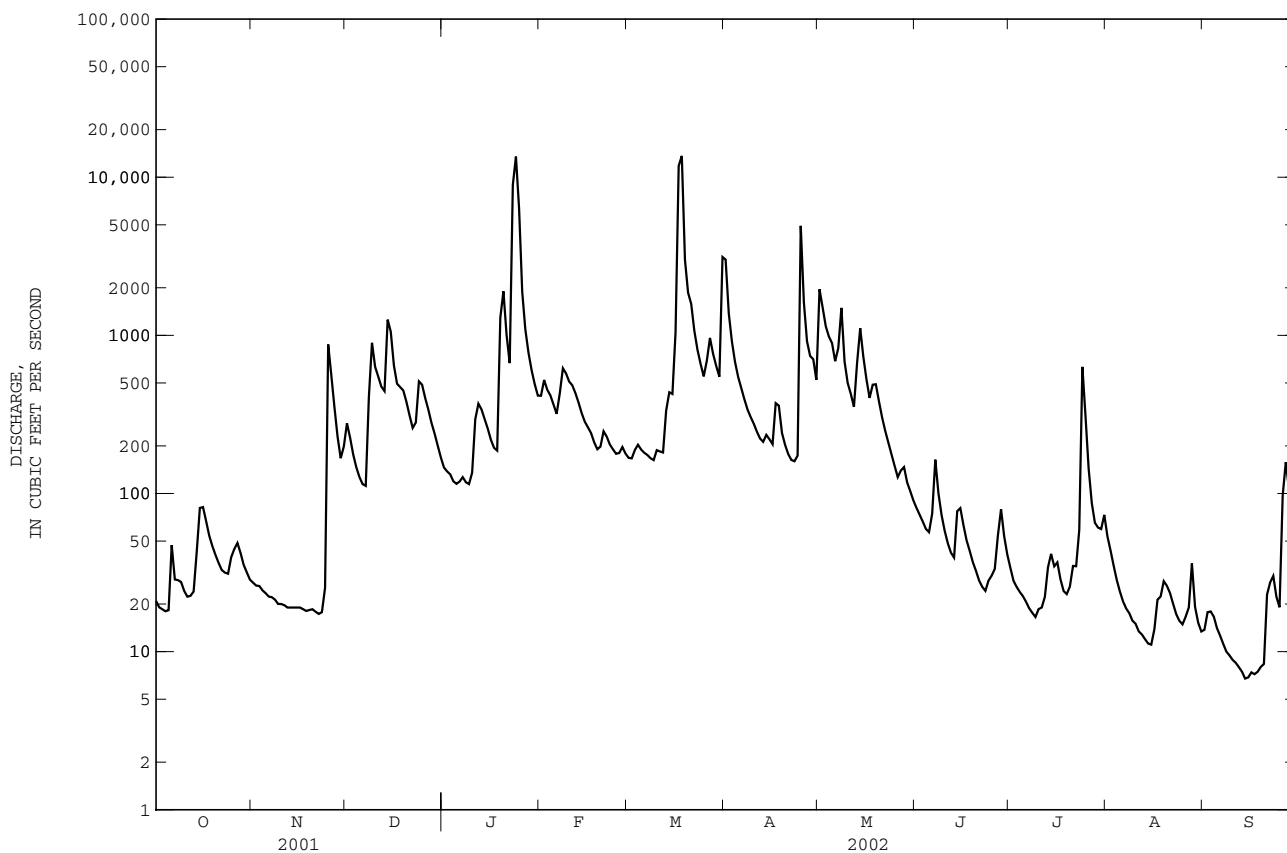
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1943 - 2002

ANNUAL TOTAL	94199	158730.6	
ANNUAL MEAN	258.1	434.9	415.6
HIGHEST ANNUAL MEAN			743
LOWEST ANNUAL MEAN			218
HIGHEST DAILY MEAN	7300	Feb 16	13600
LOWEST DAILY MEAN	12	Jul 21	6.8
ANNUAL SEVEN-DAY MINIMUM	13	Jul 17	7.3
MAXIMUM PEAK FLOW			23100
MAXIMUM PEAK STAGE			22.42
INSTANTANEOUS LOW FLOW			6.4
ANNUAL RUNOFF (CFSM)	1.32		2.22
ANNUAL RUNOFF (INCHES)	17.88		30.13
10 PERCENT EXCEEDS	553		791
50 PERCENT EXCEEDS	71		127
90 PERCENT EXCEEDS	19		18



CUMBERLAND RIVER BASIN

03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN

LOCATION.--Lat 36°23'49", long 85°10'28", Overton County, Hydrologic Unit 05130105, on left bank 20 ft upstream from bridge on State Highway 52, 0.3 mile upstream from Nettlecarrier Creek, 2.4 miles east of Alpine, and at mile 8.0.

DRAINAGE AREA.--115 mi², includes 34 mi² without surface drainage.

PERIOD OF RECORD.--October 1942 to September 1971, October 1979 to November 1981. October 2001 to September 2002. Prior to December 1942 monthly discharges only, published in WSP 1306.

REVISIONS.--WSP 1386: 1943-45(P), 1946, 1948, 1952(P). WSP 1506: Drainage area.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 683.28 ft above NGVD of 1929. Oct. 1942 to Sept. 1971 gage at same site at datum 1.0 ft higher.

REMARKS.--No estimated daily discharges, records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s, Mar. 21, 1955, gage height 17.30 ft present datum; minimum 2.6 ft³/s Sept. 13-19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of about 15.3 ft (present datum), from flood profile by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2300	7,400	11.87	Mar 18	0330	*10,100	*14.00
Jan 24	1130	8,320	12.62	Apr 25	0330	6,450	11.05
Mar 17	0930	6,960	11.50				

Minimum discharge, 3.6 ft³/s, Sept. 10, 11, 12, 13, 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	15	103	57	213	84	1510	998	46	19	14	5.9
2	9.6	15	71	53	209	85	612	564	42	17	11	7.4
3	8.9	14	56	50	181	93	391	351	38	16	10	6.8
4	8.2	13	48	47	167	93	291	350	36	15	9.0	5.9
5	9.3	13	41	44	145	87	237	323	36	15	8.2	5.2
6	37	12	37	47	136	85	204	255	45	14	7.7	4.8
7	36	11	37	46	192	84	178	251	51	12	7.0	4.6
8	23	11	427	42	221	82	162	313	39	12	6.5	4.3
9	18	11	479	40	201	82	150	204	32	13	6.3	4.2
10	14	10	204	61	190	92	133	166	29	14	6.2	3.9
11	12	10	193	130	179	87	123	145	27	12	6.6	3.9
12	13	9.7	154	136	164	92	115	127	25	17	6.2	3.7
13	14	9.5	186	117	148	160	117	540	28	49	6.1	4.0
14	53	9.3	769	104	133	169	128	533	78	67	5.8	4.1
15	93	9.3	385	92	124	154	120	282	51	36	5.8	3.9
16	50	9.1	212	79	118	327	113	205	35	24	10	4.4
17	36	9.1	163	74	109	5200	141	173	30	18	12	4.9
18	29	8.9	149	72	98	6360	120	280	27	17	16	5.3
19	25	8.9	133	879	91	1530	111	197	24	20	19	5.0
20	22	9.4	112	737	100	971	104	162	21	29	14	6.0
21	20	9.0	96	350	119	711	99	139	20	26	9.4	13
22	18	8.9	85	224	101	453	94	120	18	20	7.6	59
23	17	9.2	128	3850	94	330	84	106	18	26	6.9	35
24	16	14	197	6220	90	263	117	93	21	20	7.2	16
25	24	276	146	2810	89	218	2990	81	23	15	7.2	13
26	33	104	126	908	96	510	676	71	23	15	7.7	88
27	26	63	111	450	101	467	336	64	23	13	7.8	151
28	22	50	97	293	90	329	297	64	55	13	11	79
29	19	44	83	226	---	266	276	69	31	16	11	42
30	17	117	70	185	---	219	199	56	23	15	7.8	28
31	16	---	62	159	---	2280	---	50	---	15	6.6	---
TOTAL	749.0	913.3	5160	18582	3899	21963	10228	7332	995	630	277.6	622.2
MEAN	24.16	30.44	166.5	599.4	139.2	708.5	340.9	236.5	33.17	20.32	8.955	20.74
MAX	93	276	769	6220	221	6360	2990	998	78	67	19	151
MIN	8.2	8.9	37	40	89	82	84	50	18	12	5.8	3.7
CFSM	0.30	0.38	2.05	7.40	1.72	8.75	4.21	2.92	0.41	0.25	0.11	0.26
IN.	0.34	0.42	2.37	8.53	1.79	10.09	4.70	3.37	0.46	0.29	0.13	0.29

03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	23.59	84.96	202.3	308.4	356.1	384.5	256.2	126.3	73.16	46.94	27.71	23.76
MAX	122	384	691	1024	872	859	528	357	266	327	142	183
(WY)	1980	1958	1952	1950	1956	1955	1962	1958	1969	1967	1971	1944
MIN	3.84	4.61	6.28	11.2	79.4	136	68.8	23.5	12.3	7.33	6.09	4.23
(WY)	1953	1954	1966	1981	1968	1969	1963	1948	1948	1954	1962	1980

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

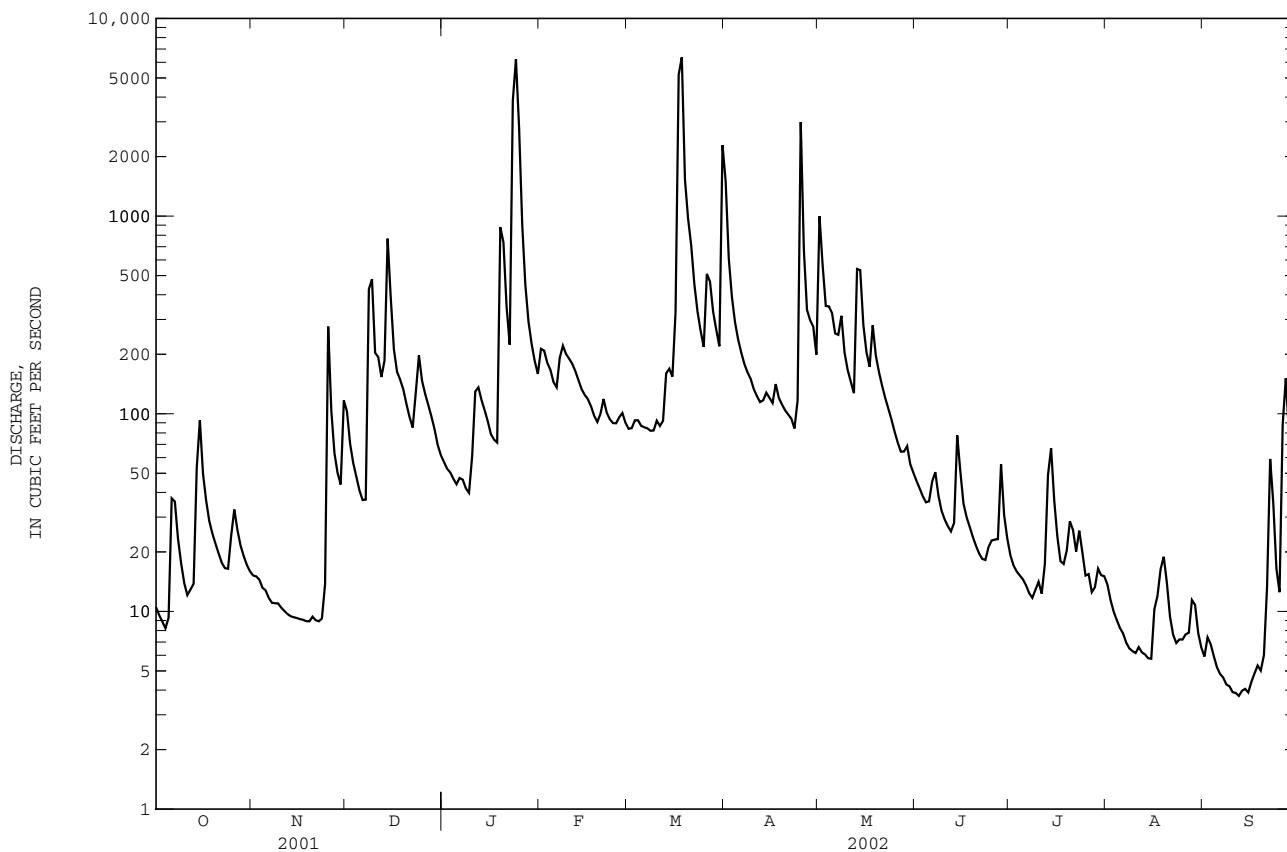
FOR 2002 WATER YEAR

WATER YEARS 1943 - 2002

ANNUAL TOTAL	6876.3	71351.1	
ANNUAL MEAN	71.63	195.5	158.0
HIGHEST ANNUAL MEAN			264
LOWEST ANNUAL MEAN			13.5
HIGHEST DAILY MEAN	769	Dec 14	7440
LOWEST DAILY MEAN	8.2	Oct 4	2.6
ANNUAL SEVEN-DAY MINIMUM	9.0	Nov 16	2.6
MAXIMUM PEAK FLOW			10100
MAXIMUM PEAK STAGE			14.00
INSTANTANEOUS LOW FLOW			a3.6
ANNUAL RUNOFF (CFSM)	0.88		2.41
ANNUAL RUNOFF (INCHES)	3.16		32.77
10 PERCENT EXCEEDS	188		358
50 PERCENT EXCEEDS	24		46
90 PERCENT EXCEEDS	9.3		6.2

a Also occurred Sept. 11, 12, 13, 15.

b Also occurred Sept. 13-19, 1954.



CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°33'15", long 85°30'52", Clay County, Hydrologic Unit 05130106, on right bank at State Highway 52 bridge, 0.5 mi northwest of courthouse in Celina, 600 ft downstream from Obey River, and at mile 380.8.

DRAINAGE AREA.--7,307 mi².

PERIOD OF RECORD.--November 1991 to September 1997, October 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1991 to September 1997, October 1999 to current year.

pH: November 1991 to September 1997, October 1999 to current year.

WATER TEMPERATURE: November 1991 to September 1997, October 1999 to current year.

DISSOLVED OXYGEN: October 1992 to September 1997, October 1999 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Lake Cumberland (station 03413500) and Dale Hollow Lake (station 03416500). Interruptions in the record were due to instrument malfunctions. Records for water temperature, specific conductance, and pH are good, dissolved oxygen records are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 280 microsiemens, Aug. 29, 1992; minimum, 113 microsiemens, Mar. 27, 1994.

pH: Maximum, 8.5 units, Mar. 3, 4, 6, 1992; minimum, 6.2 units, Sept. 14, 1993.

WATER TEMPERATURE: Maximum, 19.6°C, July 31, 2001; minimum, 2.5°C, Feb. 9, 1995.

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Jan. 29, 2000; minimum, 6.6 mg/L, Sept. 23, 2000.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 267 microsiemens, Dec. 3; minimum, 142 microsiemens, Mar. 17.

pH: Maximum, 8.2 units, several days; minimum, 6.6 units, Mar. 18.

WATER TEMPERATURE: Maximum, 18.0°C, June 13; minimum, 4.3°C, Jan. 3.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Apr. 8; minimum, 6.7 mg/L, June 10.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	217	214	215	215	212	213	237	214	228	234	230	232
2	215	212	213	215	211	213	246	232	238	230	225	227
3	216	210	212	215	209	211	267	237	248	227	226	226
4	215	212	213	215	207	210	264	234	253	228	226	227
5	215	210	213	213	206	209	256	232	243	227	226	227
6	218	210	214	213	206	208	233	231	232	230	226	228
7	218	212	214	211	204	207	232	230	231	230	229	229
8	218	212	215	212	203	206	241	230	234	230	227	229
9	214	211	213	214	202	205	241	235	239	229	227	228
10	214	210	212	218	202	209	244	238	241	229	227	228
11	214	211	212	231	199	212	246	240	243	241	228	235
12	214	209	212	227	197	206	242	232	239	242	235	237
13	215	212	213	231	197	208	239	209	225	242	236	239
14	243	213	220	218	196	209	224	217	220	236	232	234
15	225	220	223	217	214	215	240	222	232	235	229	232
16	230	224	226	217	214	215	248	239	242	231	224	227
17	233	226	230	217	212	213	255	248	252	226	223	224
18	228	222	225	213	211	212	256	252	254	224	219	222
19	225	217	220	213	209	211	253	241	251	228	222	225
20	223	219	221	210	208	209	248	241	244	234	228	230
21	223	218	220	210	206	208	243	238	240	239	234	236
22	224	218	220	207	205	206	244	236	239	239	232	236
23	222	218	220	207	205	206	241	236	239	235	191	214
24	222	219	220	227	203	207	243	241	242	191	157	176
25	224	217	220	223	208	212	245	239	243	195	179	187
26	225	220	222	218	209	212	244	241	242	---	---	---
27	227	222	226	214	208	210	242	238	240	---	---	---
28	228	223	226	214	210	212	241	232	237	227	226	226
29	224	219	221	223	210	216	242	236	238	229	225	227
30	220	215	217	224	209	217	239	235	236	231	228	230
31	217	214	215	---	---	---	235	233	234	241	231	237
MONTH	243	209	218	231	196	210	267	209	239	242	157	226

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	243	237	240	232	228	231	---	---	---	207	192	201
2	239	233	236	234	231	232	---	---	---	200	193	197
3	244	234	239	234	232	233	---	---	---	200	191	195
4	246	241	244	234	232	233	212	203	208	195	189	192
5	242	237	239	233	232	232	204	201	203	197	191	192
6	241	238	240	233	231	232	206	201	203	198	195	196
7	241	236	238	232	231	232	208	201	205	197	191	194
8	237	235	236	233	230	232	204	198	200	198	190	193
9	235	234	234	235	231	233	204	198	201	191	185	187
10	236	234	235	237	235	236	202	197	199	189	186	187
11	237	233	236	238	236	237	199	191	194	188	182	184
12	233	230	231	238	235	237	196	191	193	186	181	183
13	231	229	230	236	232	234	201	196	199	188	184	186
14	231	228	229	233	226	229	200	193	196	186	182	184
15	229	227	228	228	224	226	198	194	195	188	183	186
16	229	227	228	225	221	223	199	196	198	185	181	182
17	230	227	228	227	142	201	201	194	197	186	173	180
18	230	228	229	181	145	171	199	195	196	176	150	165
19	229	226	227	218	177	192	199	194	196	186	144	171
20	228	224	226	223	201	215	198	196	197	186	181	183
21	228	226	227	216	196	203	201	196	198	186	176	180
22	233	227	229	221	216	220	202	199	200	180	175	177
23	235	233	234	224	220	222	202	195	198	177	173	176
24	237	233	235	222	218	220	204	196	199	179	172	175
25	238	236	237	218	210	214	199	173	181	178	173	175
26	238	234	235	213	208	209	202	185	194	179	175	177
27	236	229	232	211	200	205	210	202	207	177	174	176
28	230	228	229	203	198	201	208	203	206	176	174	175
29	---	---	---	201	197	198	211	204	207	176	172	174
30	---	---	---	---	---	---	211	202	207	176	173	174
31	---	---	---	---	---	---	---	---	---	175	172	173
MONTH	246	224	233	238	142	220	212	173	199	207	144	183

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	174	172	173	190	186	187	192	186	188	186	184	185
2	177	173	174	189	184	186	194	190	191	189	183	186
3	179	175	177	187	183	184	193	190	191	188	182	185
4	180	175	178	186	182	184	196	187	190	187	185	186
5	179	174	176	185	182	184	190	186	188	186	185	185
6	176	174	175	186	183	184	188	185	186	186	185	185
7	---	---	---	187	183	185	186	183	185	186	185	185
8	---	---	---	186	183	184	185	182	183	186	185	186
9	---	---	---	185	184	185	182	181	181	188	186	187
10	219	197	214	187	184	185	182	181	181	188	187	187
11	208	192	197	188	183	185	182	180	181	189	186	187
12	199	188	193	187	182	184	181	179	180	187	185	186
13	201	171	191	190	182	184	182	178	179	186	185	186
14	208	190	199	190	181	185	180	178	178	186	186	186
15	223	194	206	190	183	186	178	175	176	187	185	186
16	226	202	212	188	183	185	176	174	175	187	185	186
17	220	194	205	185	181	183	180	175	177	186	185	185
18	221	191	204	186	181	183	184	180	182	185	183	184
19	208	194	201	187	180	183	187	180	185	186	185	185
20	209	192	200	184	179	181	187	186	186	187	184	186
21	214	195	205	186	182	183	187	185	186	187	183	184
22	---	---	---	190	186	188	186	184	185	189	185	187
23	---	---	---	189	186	187	186	183	184	190	186	188
24	---	---	---	190	183	186	185	183	184	189	185	188
25	---	---	---	187	184	186	185	183	184	187	183	185
26	189	186	187	187	183	184	187	182	185	219	182	191
27	190	185	188	186	182	184	188	185	187	205	187	196
28	188	182	185	186	180	183	188	184	186	202	194	199
29	190	185	187	186	182	184	186	185	186	204	198	201
30	190	186	188	187	180	184	187	184	186	207	200	204
31	---	---	---	189	183	185	186	182	184	---	---	---
MONTH	226	171	192	190	179	185	196	174	184	219	182	188

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	7.5	7.1	7.7	7.6	7.3	7.2	7.8	7.8	8.1	8.0	7.5	7.4
2	7.6	7.5	7.7	7.5	7.4	7.3	7.9	7.8	8.1	8.0	7.5	7.5
3	7.6	7.5	7.7	7.5	7.6	7.4	8.0	7.9	8.1	8.0	7.5	7.5
4	7.6	7.5	7.6	7.5	7.7	7.6	8.0	7.9	8.1	8.0	7.5	7.5
5	7.6	7.5	7.6	7.5	7.8	7.7	8.0	7.9	8.0	8.0	7.5	7.5
6	7.5	7.5	7.7	7.5	7.8	7.7	8.0	7.9	8.0	7.9	7.6	7.5
7	7.7	7.5	7.7	7.6	7.8	7.7	7.9	7.9	8.0	7.9	7.6	7.5
8	7.7	7.6	7.7	7.5	7.7	7.7	8.1	7.9	8.0	7.9	7.6	7.6
9	7.8	7.7	7.7	7.6	7.8	7.7	8.1	7.9	7.9	7.9	7.7	7.6
10	7.8	7.8	7.7	7.5	7.8	7.8	8.1	7.9	7.9	7.9	7.6	7.6
11	7.8	7.7	7.7	7.5	7.8	7.7	8.0	7.9	8.0	7.9	7.7	7.6
12	7.8	7.7	7.7	7.5	7.8	7.6	8.1	7.9	7.9	7.9	7.7	7.6
13	7.7	7.6	7.7	7.5	7.7	7.6	8.1	7.9	7.9	7.8	7.7	7.6
14	7.7	7.6	7.7	7.5	7.6	7.5	8.0	7.9	7.9	7.8	7.7	7.7
15	7.7	7.7	7.7	7.6	7.6	7.5	8.2	8.0	7.8	7.8	7.8	7.6
16	7.7	7.6	7.7	7.6	7.7	7.6	8.0	7.8	7.9	7.8	7.8	7.7
17	7.7	7.7	7.7	7.6	7.7	7.7	7.9	7.8	7.9	7.8	7.7	7.5
18	7.7	7.6	7.7	7.6	7.7	7.7	7.9	7.8	7.9	7.8	7.6	6.6
19	7.7	7.5	7.7	7.5	7.8	7.7	7.9	7.8	7.8	7.7	7.8	7.3
20	7.6	7.5	7.6	7.5	7.8	7.7	7.9	7.8	7.8	7.7	7.8	7.8
21	7.6	7.6	7.6	7.5	7.7	7.7	8.0	7.8	7.8	7.6	7.8	7.7
22	7.6	7.5	7.6	7.5	7.8	7.7	8.0	7.9	7.6	7.4	7.8	7.8
23	7.6	7.5	7.6	7.5	7.8	7.7	8.0	7.8	7.5	7.4	7.8	7.8
24	7.5	7.4	7.6	7.4	7.8	7.7	7.8	7.7	7.5	7.4	7.8	7.8
25	7.5	7.3	7.5	7.4	7.8	7.8	7.7	7.7	7.5	7.4	7.8	7.8
26	7.4	7.4	7.4	7.3	7.9	7.7	---	---	7.5	7.5	7.8	7.7
27	7.5	7.4	7.5	7.3	7.8	7.7	---	---	7.5	7.5	7.8	7.7
28	7.5	7.4	7.4	7.3	7.8	7.7	8.2	8.1	7.5	7.5	7.7	7.7
29	7.8	7.4	7.4	7.3	7.8	7.8	8.2	8.1	---	---	7.7	7.7
30	7.8	7.6	7.4	7.2	7.8	7.7	8.2	8.0	---	---	---	---
31	7.7	7.6	---	---	7.8	7.7	8.0	8.0	---	---	---	---
MONTH	7.8	7.1	7.7	7.2	7.9	7.2	8.2	7.7	8.1	7.4	7.8	6.6

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	---	---	7.7	7.6	7.4	7.4	8.1	7.9	7.8	7.7	7.5	7.3
2	---	---	7.6	7.6	7.4	7.4	8.1	7.8	7.8	7.6	7.5	7.3
3	7.8	7.8	7.6	7.6	7.5	7.4	7.8	7.7	7.7	7.6	7.6	7.2
4	7.8	7.7	7.6	7.6	7.5	7.4	7.8	7.6	7.7	7.6	7.3	7.2
5	7.8	7.7	7.6	7.6	7.5	7.5	7.8	7.6	7.8	7.6	7.3	7.3
6	7.8	7.8	7.6	7.6	7.5	7.4	7.9	7.7	7.8	7.7	7.4	7.3
7	7.8	7.8	7.6	7.6	---	---	7.7	7.7	7.7	7.4	7.4	7.3
8	7.8	7.7	7.6	7.6	---	---	7.9	7.7	7.4	7.3	7.4	7.4
9	7.7	7.7	7.6	7.5	---	---	7.9	7.8	7.4	7.3	7.5	7.4
10	7.7	7.6	7.6	7.5	7.9	7.7	7.8	7.8	7.6	7.4	7.6	7.5
11	7.7	7.7	7.5	7.5	8.1	7.8	7.8	7.7	7.6	7.6	7.6	7.5
12	7.7	7.7	7.5	7.5	8.2	8.0	7.8	7.7	7.6	7.5	7.5	7.4
13	7.7	7.7	7.5	7.5	8.2	8.0	7.8	7.7	7.6	7.6	7.5	7.3
14	7.7	7.6	7.5	7.5	8.2	8.1	7.8	7.6	7.6	7.6	7.6	7.4
15	7.6	7.6	7.5	7.5	8.1	8.0	7.7	7.6	7.7	7.6	7.4	7.4
16	7.6	7.6	7.5	7.5	8.0	8.0	7.6	7.5	7.7	7.5	7.4	7.3
17	7.6	7.6	7.5	7.4	8.0	7.9	7.5	7.5	7.5	7.4	7.4	7.3
18	7.6	7.6	7.5	7.4	7.9	7.8	7.5	7.4	7.4	7.4	7.4	7.3
19	7.6	7.6	7.5	7.4	7.8	7.8	7.4	7.4	7.4	7.2	7.3	7.2
20	7.6	7.5	7.5	7.4	7.8	7.7	7.4	7.4	7.4	7.3	7.3	7.2
21	7.6	7.6	7.5	7.4	7.7	7.7	7.5	7.4	7.4	7.3	7.3	7.2
22	7.6	7.5	7.4	7.4	7.7	7.6	7.6	7.5	7.4	7.3	7.2	7.2
23	7.6	7.6	7.4	7.4	7.6	7.6	7.6	7.6	7.4	7.2	7.2	7.2
24	7.7	7.6	7.4	7.4	7.7	7.6	7.6	7.6	7.3	7.2	7.2	7.2
25	7.7	7.6	7.4	7.4	8.1	7.6	7.6	7.5	7.3	7.2	7.2	7.1
26	7.6	7.6	7.4	7.4	8.1	7.9	7.5	7.5	7.3	7.2	7.4	7.2
27	7.7	7.6	7.4	7.4	8.1	7.9	7.6	7.5	7.4	7.2	7.5	7.4
28	7.7	7.6	7.4	7.3	8.1	7.9	7.6	7.5	7.3	7.3	7.4	7.4
29	7.7	7.6	7.4	7.3	8.1	8.0	7.6	7.4	7.3	7.3	7.4	7.3
30	7.7	7.6	7.4	7.3	8.1	8.0	7.7	7.5	7.4	7.3	7.3	7.3
31	---	---	7.5	7.3	---	---	7.8	7.7	7.5	7.4	---	---
MONTH	7.8	7.5	7.7	7.3	8.2	7.4	8.1	7.4	7.8	7.2	7.6	7.1

CUMBERLAND RIVER BASIN

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03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.2	14.3	14.7	13.0	12.2	12.6	12.9	12.3	12.6	4.9	4.5	4.7
2	15.6	14.8	15.2	14.0	12.8	13.4	12.3	11.8	12.1	4.7	4.4	4.5
3	15.3	14.9	15.1	14.6	13.8	14.2	11.8	11.2	11.4	4.6	4.3	4.5
4	15.3	14.6	14.9	14.2	13.6	13.9	11.5	11.0	11.2	4.7	4.4	4.5
5	15.2	14.5	14.9	13.8	13.3	13.5	11.6	11.2	11.4	5.2	4.5	4.8
6	15.0	14.4	14.8	13.4	12.6	12.8	12.1	11.4	11.8	5.6	5.2	5.4
7	14.6	14.2	14.4	12.7	11.9	12.3	12.6	12.0	12.4	6.0	5.5	5.7
8	14.2	13.6	13.9	12.6	11.8	12.2	13.0	12.6	12.9	5.6	5.2	5.4
9	14.1	13.6	13.8	13.1	12.4	12.7	13.0	12.3	12.7	6.4	5.5	5.9
10	14.6	13.7	14.1	12.8	12.2	12.5	12.3	11.5	11.7	7.0	6.4	6.7
11	15.3	14.4	14.8	12.7	12.0	12.4	11.5	11.3	11.4	7.8	7.0	7.4
12	15.4	15.0	15.2	12.3	11.8	12.1	11.5	11.2	11.3	7.8	7.4	7.6
13	15.7	15.2	15.4	12.2	11.7	12.0	12.9	11.5	12.4	7.7	7.2	7.4
14	16.4	15.6	15.9	12.2	11.4	11.9	13.3	12.9	13.1	7.2	7.0	7.1
15	16.2	15.5	15.9	12.3	11.8	12.1	13.0	12.8	12.9	7.4	7.0	7.2
16	16.0	14.9	15.5	12.6	11.9	12.3	12.8	12.5	12.6	8.0	7.0	7.5
17	14.9	13.1	13.9	12.7	12.0	12.4	12.8	12.6	12.7	8.4	7.9	8.1
18	13.2	12.3	12.7	13.0	12.3	12.7	12.7	11.9	12.4	8.2	7.7	8.0
19	12.9	12.4	12.6	13.0	12.5	12.8	11.9	11.3	11.6	7.9	7.5	7.7
20	13.5	12.7	13.1	12.9	12.3	12.6	11.3	10.0	10.6	7.7	7.3	7.5
21	14.4	13.2	13.7	12.3	11.4	11.8	10.0	9.1	9.4	8.0	7.5	7.7
22	14.7	14.2	14.4	11.4	10.7	11.0	9.3	8.7	9.0	7.7	7.0	7.4
23	15.4	14.7	15.1	11.3	10.5	10.8	9.4	8.9	9.2	8.6	7.7	8.2
24	16.3	15.3	15.8	12.9	11.2	11.9	9.3	8.6	8.9	9.9	8.3	9.5
25	16.3	15.0	15.9	13.2	12.6	12.9	8.6	7.4	7.9	9.9	9.1	9.6
26	15.6	14.2	14.8	13.1	12.6	12.9	7.4	6.5	6.8	---	---	---
27	14.2	12.6	13.4	13.4	13.0	13.2	6.5	5.7	6.1	---	---	---
28	12.6	11.4	11.9	13.3	13.1	13.2	6.1	5.6	5.9	9.0	8.6	8.9
29	11.5	10.8	11.0	13.9	13.1	13.5	6.0	5.7	5.9	10.0	9.0	9.5
30	11.8	10.8	11.2	13.8	12.9	13.4	5.9	5.3	5.6	10.8	10.0	10.4
31	12.5	11.5	12.0	---	---	---	5.4	4.9	5.1	11.0	10.5	10.8
MONTH	16.4	10.8	14.2	14.6	10.5	12.6	13.3	4.9	10.4	11.0	4.3	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.0	9.9	10.7	7.8	7.0	7.4	---	---	---	14.5	12.9	13.4
2	9.9	8.9	9.5	7.9	7.6	7.7	---	---	---	12.9	12.0	12.5
3	8.9	7.9	8.2	7.9	7.3	7.8	10.1	9.3	9.8	12.5	11.5	12.0
4	8.0	7.4	7.8	7.3	6.8	6.9	9.3	8.9	9.1	12.2	11.1	11.4
5	7.7	7.3	7.5	6.9	6.0	6.5	9.9	8.9	9.4	11.7	11.0	11.3
6	7.7	7.5	7.6	8.2	6.6	7.5	9.9	9.3	9.6	11.8	11.4	11.6
7	7.6	7.4	7.5	9.0	7.8	8.4	10.0	9.2	9.6	12.0	11.2	11.5
8	7.8	7.4	7.6	9.7	8.2	9.0	10.7	9.7	10.2	12.4	11.9	12.2
9	8.3	7.7	8.0	9.9	9.4	9.6	10.3	10.0	10.1	12.4	12.1	12.2
10	8.3	8.2	8.3	9.4	8.7	9.1	10.0	9.4	9.8	12.1	11.1	11.5
11	8.6	8.0	8.3	9.0	8.1	8.7	10.8	9.7	10.3	11.6	10.9	11.2
12	8.2	7.8	8.0	8.9	8.6	8.7	11.0	10.3	10.6	12.2	11.6	11.9
13	8.1	7.6	7.9	9.1	8.6	8.8	10.6	10.2	10.4	12.6	11.9	12.2
14	8.0	7.6	7.8	9.7	9.0	9.3	10.7	10.3	10.6	12.4	12.1	12.2
15	8.1	7.6	7.8	10.7	9.4	10.1	12.0	10.5	11.3	12.1	11.6	11.8
16	8.5	8.0	8.3	10.5	10.4	10.5	12.8	11.6	12.2	11.8	11.4	11.6
17	8.5	7.9	8.3	11.9	10.0	10.6	12.6	11.8	12.2	12.8	11.5	11.8
18	8.2	7.6	7.9	11.5	10.9	11.2	12.5	11.8	12.1	13.2	11.6	12.3
19	8.1	7.6	7.8	11.2	9.9	11.0	12.7	11.9	12.3	13.2	11.4	12.0
20	8.8	8.1	8.5	10.1	9.2	9.7	12.4	11.8	12.1	11.6	11.2	11.4
21	9.2	8.6	8.9	10.2	9.1	9.8	13.3	12.0	12.5	11.5	11.0	11.2
22	8.8	8.0	8.5	9.1	8.3	8.7	14.1	13.2	13.7	11.6	10.8	11.2
23	8.0	7.5	7.8	8.5	7.8	8.2	14.2	13.1	13.6	12.0	11.2	11.6
24	8.4	7.6	8.0	8.8	8.0	8.4	13.2	11.7	12.3	12.3	11.5	11.9
25	9.0	7.9	8.4	9.3	8.6	8.9	13.3	12.3	12.9	12.5	11.8	12.1
26	8.9	8.0	8.6	9.2	8.7	8.9	13.2	12.2	12.5	12.9	12.4	12.6
27	8.0	6.8	7.3	8.8	8.1	8.5	12.4	11.6	11.9	12.7	12.1	12.4
28	7.2	6.5	6.8	8.6	7.8	8.2	13.4	11.6	12.3	13.2	12.3	12.7
29	---	---	---	9.4	8.6	8.8	14.0	13.2	13.5	12.9	12.2	12.6
30	---	---	---	---	---	---	14.5	13.7	14.1	13.1	12.4	12.8
31	---	---	---	---	---	---	---	---	---	13.3	12.5	12.9
MONTH	11.0	6.5	8.1	11.9	6.0	8.9	14.5	8.9	11.5	14.5	10.8	12.0

CUMBERLAND RIVER BASIN

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.5	12.7	13.1	17.4	15.4	16.1	15.5	15.2	15.3	16.2	15.5	15.8
2	14.3	12.9	13.5	17.5	16.4	17.0	15.6	15.2	15.4	17.3	15.8	16.4
3	16.3	14.3	15.1	16.6	15.0	15.6	15.9	15.6	15.7	17.6	16.7	17.2
4	17.2	16.3	16.6	15.8	14.9	15.3	16.4	15.6	16.0	16.7	16.0	16.3
5	17.2	15.4	16.2	15.9	15.3	15.5	17.8	16.0	16.7	16.3	15.6	15.9
6	---	---	---	16.3	15.5	15.8	17.8	16.6	17.3	16.0	15.5	15.7
7	---	---	---	16.3	15.4	15.8	16.6	15.5	16.0	16.0	15.6	15.8
8	---	---	---	17.0	15.5	16.1	15.8	15.4	15.6	16.4	15.8	16.1
9	---	---	---	16.6	15.4	15.9	15.6	15.3	15.5	17.3	16.0	16.5
10	17.2	15.8	16.4	15.4	14.4	14.8	15.6	15.2	15.4	17.8	16.8	17.2
11	17.8	16.6	17.5	14.4	13.5	14.0	15.9	15.2	15.5	17.7	16.6	17.0
12	17.6	15.6	16.5	14.1	13.6	13.8	17.1	15.5	16.1	16.7	15.8	16.3
13	18.0	15.2	15.9	13.9	13.2	13.5	17.0	15.9	16.5	16.2	15.6	15.9
14	16.5	15.2	15.7	14.0	13.0	13.4	15.9	15.3	15.5	16.7	15.7	16.1
15	16.1	15.5	15.9	15.3	14.0	14.6	15.5	15.3	15.4	16.6	16.0	16.3
16	15.5	14.4	14.8	16.3	15.0	15.6	15.4	14.6	15.0	17.0	16.1	16.4
17	15.3	14.0	14.6	16.3	15.4	15.8	14.7	14.3	14.5	17.0	16.1	16.5
18	15.0	14.1	14.5	16.2	15.2	15.7	15.3	14.3	14.7	16.1	15.6	15.8
19	15.0	14.5	14.7	15.9	15.1	15.5	16.4	15.2	15.7	16.2	15.5	15.8
20	15.1	14.7	14.9	16.0	15.0	15.4	17.0	15.9	16.4	16.4	16.1	16.3
21	15.2	14.8	15.0	16.4	15.3	15.8	15.9	15.5	15.7	16.4	16.2	16.3
22	15.5	14.9	15.1	17.0	15.4	16.0	16.2	15.8	15.9	16.2	16.1	16.2
23	15.6	14.8	15.1	17.2	16.4	16.8	16.2	15.9	16.0	16.4	15.9	16.2
24	16.3	14.6	15.4	17.1	15.2	15.9	16.2	15.7	16.0	16.5	15.7	16.1
25	15.9	15.3	15.6	15.7	15.0	15.3	16.1	15.8	16.0	16.1	15.4	15.7
26	15.8	14.7	15.3	15.7	14.9	15.3	17.1	15.7	16.3	15.6	15.4	15.5
27	16.1	14.8	15.4	15.4	14.9	15.2	17.2	16.3	16.8	16.5	15.5	16.1
28	16.0	15.0	15.6	16.2	15.1	15.6	16.3	15.4	15.8	17.7	16.4	17.0
29	15.1	14.6	14.8	17.4	15.6	16.3	15.9	15.5	15.7	17.7	17.0	17.5
30	15.9	14.5	15.1	17.6	16.3	17.0	15.8	15.3	15.6	17.8	16.7	17.1
31	---	---	---	16.3	15.2	15.7	15.9	15.3	15.6	---	---	---
MONTH	18.0	12.7	15.3	17.6	13.0	15.5	17.8	14.3	15.8	17.8	15.4	16.3

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.6	8.8	9.3	11.2	10.4	10.8	9.2	8.3	9.0	13.0	12.5	12.7
2	9.6	9.2	9.4	11.0	10.1	10.5	9.6	8.1	9.1	12.8	12.1	12.4
3	9.3	8.9	9.1	10.8	9.9	10.3	9.6	7.8	9.1	12.6	12.3	12.5
4	9.2	8.8	9.0	10.5	9.8	10.1	10.2	8.2	9.4	12.8	12.4	12.5
5	9.0	8.6	8.8	10.4	9.6	9.9	10.4	8.8	9.8	12.9	12.4	12.6
6	8.8	8.6	8.7	10.6	9.9	10.2	10.5	10.0	10.3	12.8	12.1	12.5
7	9.1	8.5	8.8	10.6	10.2	10.4	10.3	10.0	10.2	12.3	12.0	12.1
8	9.5	8.9	9.1	10.5	9.9	10.2	10.2	9.8	10.0	12.8	12.2	12.4
9	10.1	9.5	9.8	10.5	9.8	10.2	10.4	9.9	10.1	12.8	12.2	12.5
10	10.1	9.6	9.9	10.4	9.7	10.1	10.5	10.3	10.4	12.7	11.8	12.2
11	10.0	9.3	9.5	10.4	9.7	10.0	10.9	10.4	10.5	12.4	11.6	11.9
12	9.6	9.0	9.1	10.3	9.7	9.9	11.1	10.8	10.9	12.4	11.7	11.9
13	9.3	8.7	9.0	10.4	9.6	10	11.2	10.2	10.7	12.2	11.3	11.6
14	9.2	8.6	8.8	10.3	9.8	9.9	10.4	10.2	10.3	12.2	11.7	11.9
15	8.6	8.2	8.4	10.1	9.6	9.8	10.3	10.1	10.2	12.8	11.7	12.2
16	---	---	---	10.1	9.4	9.7	10.4	10.1	10.2	11.7	11.1	11.3
17	---	---	---	10.1	9.5	9.8	10.6	10.4	10.5	11.4	11.0	11.2
18	9.7	9.1	9.4	10.1	9.5	9.7	10.8	10.4	10.5	11.6	11.0	11.3
19	10.6	9.9	10.2	9.9	9.3	9.6	10.9	10.7	10.8	11.3	11.0	11.2
20	11.3	10.6	10.8	9.9	9.2	9.5	11.2	10.9	11.0	11.6	11.2	11.4
21	11.6	11.1	11.4	10.1	9.5	9.7	11.7	11.2	11.5	12.0	11.3	11.6
22	11.9	11.3	11.6	10.3	9.7	9.9	12.2	11.2	11.9	12.0	11.7	11.8
23	11.9	11.3	11.6	10.3	9.8	10.1	12.1	11.6	11.8	11.8	11.2	11.4
24	11.7	10.0	11.3	10.2	9.4	9.7	11.9	11.6	11.7	11.3	10.7	11.0
25	---	---	---	9.5	8.9	9.1	12.3	11.9	12.0	11.0	10.7	10.9
26	---	---	---	9.0	8.7	8.8	12.8	12.3	12.5	---	---	---
27	---	---	---	9.2	8.7	8.9	13.0	12.7	12.8	---	---	---
28	---	---	---	9.4	9.0	9.1	13.1	12.8	12.9	11.1	10.9	11.0
29	11.7	10.7	11.1	9.4	9.1	9.2	13.0	12.8	12.9	10.9	10.7	10.8
30	11.7	11.0	11.4	9.2	9.0	9.1	13.0	12.4	12.8	10.7	10.5	10.6
31	11.5	10.6	11.0	---	---	---	13.0	12.6	12.8	10.6	10.4	10.5
MONTH	11.9	8.2	9.9	11.2	8.7	9.8	13.1	7.8	10.9	13.0	10.4	11.7

03417500 CUMBERLAND RIVER AT CELINA, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.6	10.4	10.5	11.7	11.5	11.6	---	---	---	10.9	10.4	10.6
2	10.8	10.6	10.7	11.8	11.6	11.7	---	---	---	10.7	10.5	10.6
3	11.2	10.8	11.1	11.9	11.6	11.7	12.0	11.7	11.7	10.8	10.3	10.5
4	11.5	11.2	11.3	12.3	11.8	12.0	12.0	11.6	11.7	10.9	10.4	10.7
5	11.5	11.2	11.4	12.5	12.2	12.4	12.2	11.8	12.0	10.9	10.7	10.8
6	11.2	11.1	11.2	12.2	11.8	12.1	12.2	12.0	12.1	11.4	10.8	11.0
7	11.4	11.2	11.3	12.0	11.6	11.8	12.3	12.1	12.2	11.3	10.7	11.0
8	11.4	11.3	11.3	12.0	11.1	11.7	13.5	12.1	12.6	10.8	10.6	10.7
9	11.4	11.3	11.4	---	---	---	12.8	12.1	12.6	10.7	10.6	10.6
10	11.4	11.3	11.4	---	---	---	12.8	11.1	11.6	10.9	10.6	10.8
11	11.6	11.4	11.5	---	---	---	11.1	11.1	11.1	11.0	10.8	10.9
12	11.6	11.5	11.5	11.6	11.5	11.6	11.1	11.0	11.1	10.9	10.7	10.8
13	11.6	11.4	11.5	11.5	11.3	11.4	11.0	10.9	11.0	10.7	10.4	10.6
14	11.8	11.5	11.7	11.6	11.2	11.4	11.0	10.9	10.9	10.5	10.2	10.3
15	11.8	11.6	11.7	11.6	11.3	11.4	10.9	10.7	10.8	10.8	10.4	10.6
16	11.7	11.6	11.6	11.4	11.0	11.1	10.8	10.6	10.7	10.8	10.6	10.7
17	11.9	11.6	11.7	11.1	10.2	10.8	10.8	10.7	10.7	11.3	10.3	10.5
18	12.1	11.8	11.9	12.2	10.3	10.8	11.0	10.8	10.9	10.4	9.6	10.1
19	12.0	11.7	11.9	12.2	10.5	10.8	11.0	10.8	10.9	10.4	9.3	10.0
20	11.7	11.1	11.4	11.1	10.8	11.0	10.9	10.8	10.8	10.6	10.4	10.5
21	11.2	11.0	11.1	11.1	10.8	10.9	10.9	10.6	10.8	10.6	10.4	10.5
22	11.3	11.1	11.2	11.5	11.1	11.3	10.7	10.6	10.6	10.6	10.4	10.5
23	11.3	11.1	11.3	11.6	11.4	11.5	10.7	10.5	10.6	10.5	10.2	10.4
24	11.5	11.3	11.4	11.5	11.4	11.4	11.2	10.7	11.0	10.3	10.2	10.3
25	11.6	11.4	11.5	11.4	11.3	11.4	10.8	9.9	10.4	10.2	9.9	10.1
26	11.6	11.4	11.5	11.3	11.2	11.2	10.6	9.9	10.4	10.2	9.9	10.0
27	11.6	11.4	11.5	11.3	11.2	11.2	11.0	10.5	10.8	10.1	9.9	10.0
28	11.6	11.5	11.6	11.4	11.3	11.4	11.0	10.8	10.9	10.1	9.8	9.9
29	---	---	---	11.4	11.3	11.3	10.8	10.4	10.6	10.0	9.6	9.8
30	---	---	---	---	---	---	10.7	10.4	10.6	9.9	9.6	9.8
31	---	---	---	---	---	---	---	---	---	9.8	9.5	9.7
MONTH	12.1	10.4	11.4	12.5	10.2	11.4	13.5	9.9	11.1	11.4	9.3	10.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.6	9.5	9.5	---	---	---	10.4	9.9	10.1	---	---	---
2	9.5	9.4	9.5	---	---	---	10.5	10.0	10.2	---	---	---
3	9.4	9.2	9.3	---	---	---	10.4	9.9	10.2	---	---	---
4	9.4	9.2	9.3	---	---	---	10.5	10.1	10.3	8.5	8.2	8.3
5	9.5	9.2	9.3	---	---	---	10.7	10.1	10.3	8.6	8.2	8.4
6	9.3	9.2	9.2	---	---	---	10.7	10.2	10.4	8.7	8.3	8.4
7	---	---	---	---	---	---	10.5	9.8	10.3	8.7	8.3	8.4
8	---	---	---	---	---	---	10.7	10.0	10.3	8.7	8.3	8.6
9	---	---	---	11.0	10.6	10.7	10.7	10.2	10.4	9.2	8.3	8.6
10	9.1	6.7	8.6	10.9	10.5	10.7	10.8	9.9	10.4	9.4	8.3	9.0
11	9.4	8.1	8.9	10.9	10.5	10.7	10.6	9.9	10.3	9.2	8.2	8.8
12	9.8	8.2	9.3	10.8	10.5	10.7	10.8	9.2	10.1	9.1	8.1	8.7
13	9.6	8.8	9.3	11.0	10.7	10.8	10.6	9.5	10.2	9.3	8.0	8.8
14	9.7	8.3	9.3	11.0	10.7	10.9	---	---	---	9.2	8.4	8.9
15	9.2	7.5	8.6	11.3	10.6	10.9	---	---	---	9.1	8.0	8.6
16	10.0	8.0	9.1	11.3	10.7	11.0	---	---	---	9.2	7.2	8.2
17	10.3	8.2	9.5	11.3	10.8	11.1	---	---	---	---	---	---
18	10.6	9.0	9.9	11.5	10.9	11.1	---	---	---	---	---	---
19	10.5	9.1	10.1	11.5	10.9	11.2	8.3	7.8	8.1	9.1	8.6	8.8
20	10.7	9.5	10.3	11.2	10.9	11.0	8.3	8.0	8.1	9.1	8.6	8.8
21	10.5	9.0	10.1	11.4	10.6	11.0	8.0	7.8	7.9	9.3	8.9	9.1
22	10.6	9.5	10.1	---	---	---	8.0	7.7	7.8	9.3	9.0	9.2
23	10.7	9.0	9.9	11.3	10.1	10.8	8.0	7.6	7.7	10.5	9.3	9.7
24	10.9	8.1	9.8	11.3	10.1	10.6	7.9	7.4	7.6	10.7	10.1	10.4
25	10.6	8.7	10.1	---	---	---	7.7	7.4	7.5	10.6	9.6	10.2
26	10.8	9.9	10.3	---	---	---	8.0	6.9	7.6	9.6	8.6	9.3
27	10.6	10.0	10.3	---	---	---	8.0	7.6	7.8	8.6	7.6	8.1
28	10.5	10.0	10.2	---	---	---	7.6	7.4	7.5	7.8	7.2	7.4
29	10.4	9.9	10.2	---	---	---	7.5	7.1	7.4	---	---	---
30	10.7	9.3	10.2	---	---	---	---	---	---	---	---	---
31	---	---	---	10.2	9.8	10.0	---	---	---	---	---	---
MONTH	10.9	6.7	9.6	11.5	9.8	10.8	10.8	6.9	9.1	10.7	7.2	8.8

CUMBERLAND RIVER BASIN

03418070 ROARING RIVER ABOVE GAINESBORO, TN

LOCATION.--Lat 36°21'04", long 85°32'45", Jackson County, Hydrologic Unit 05130106, near left bank of downstream end of county road bridge. 1.1 mi upstream from Blackburn Fork, 6.3 mi east of Gainesboro, and at mile 9.9.

DRAINAGE AREA.--210 mi², includes 34 mi² without surface drainage.

PERIOD OF RECORD.--October 1974 to September 1991. October 1992 to September 1997, crest-stage partial record station. October 2001 to September 2002. Prior to December 1942 monthly discharges only, published in WSP 1306.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 520.56 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good, except those below 5.0 ft³/s, which are poor. Minimum discharge for current year and period of record, no flow many days each years. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s, Mar. 12, 1975, gage height 21.83 ft, from high-water marks; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	1300	12,700	17.64	Mar 31	1530	5,980	12.65
Mar 18	0500	*13,300	*17.93	Apr 25	0500	5,580	12.21

Minimum discharge, no flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	109	66	278	51	2700	1430	8.1	0.00	0.00	0.00
2	0.00	0.00	37	59	288	50	1240	1060	3.9	0.00	0.00	0.00
3	0.00	0.00	8.3	52	225	54	790	595	1.6	0.00	0.00	0.00
4	0.00	0.00	7.4	50	199	52	562	637	0.99	0.00	0.00	0.00
5	0.07	0.00	3.0	41	166	46	439	585	1.2	0.00	0.00	0.00
6	135	0.00	0.12	51	154	43	351	441	6.7	0.00	0.00	0.00
7	15	0.00	0.80	57	230	41	283	466	16	0.00	0.00	0.00
8	0.00	0.00	839	44	293	37	234	601	1.8	0.00	0.00	0.00
9	0.00	0.00	964	40	251	39	198	414	0.48	0.00	0.00	0.00
10	0.00	0.00	418	43	223	44	156	308	0.00	0.00	0.00	0.00
11	0.00	0.00	394	96	204	39	126	233	0.00	0.02	0.00	0.00
12	0.00	0.00	296	130	176	42	106	174	0.00	0.00	0.00	0.00
13	0.00	0.00	360	103	155	52	92	777	3.6	10	0.00	0.00
14	174	0.00	1160	84	134	68	84	1140	109	35	0.00	0.00
15	149	0.00	726	70	120	57	77	588	26	1.7	0.00	0.00
16	53	0.00	401	58	109	93	60	393	2.4	0.00	0.00	0.00
17	10	0.00	294	50	95	5500	47	274	0.70	0.00	0.00	0.00
18	0.15	0.00	256	51	83	9650	41	470	0.00	0.00	0.00	0.00
19	0.00	0.00	206	618	76	2820	33	307	0.00	0.00	0.00	0.00
20	0.00	0.00	161	959	87	2180	28	207	0.00	0.00	0.00	0.00
21	0.00	0.00	129	487	93	1580	23	157	0.00	0.00	0.00	0.00
22	0.00	0.00	108	315	76	960	21	121	0.00	0.00	0.00	2.0
23	0.00	0.00	188	3940	67	675	13	96	0.00	0.00	0.00	1.9
24	0.00	0.00	348	9380	62	522	60	75	0.00	0.00	0.00	0.00
25	0.03	40	245	5060	57	407	2970	58	0.00	0.00	0.00	0.00
26	0.00	28	191	1720	61	1170	914	56	0.00	0.00	0.00	52
27	0.00	2.3	160	910	61	1160	458	52	0.00	0.00	0.00	668
28	0.00	3.2	135	575	55	722	342	35	18	0.00	0.00	180
29	0.00	15	112	397	---	544	382	26	0.39	0.00	0.00	39
30	0.00	89	89	288	---	427	223	19	0.00	0.00	0.00	6.0
31	0.00	---	76	223	---	3120	---	13	---	0.00	0.00	---
TOTAL	536.25	177.50	8421.62	26017	4078	32245	13053	11808	200.86	46.72	0.00	948.90
MEAN	17.30	5.917	271.7	839.3	145.6	1040	435.1	380.9	6.695	1.507	0.000	31.63
MAX	174	89	1160	9380	293	9650	2970	1430	109	35	0.00	668
MIN	0.00	0.00	0.12	40	55	37	13	13	0.00	0.00	0.00	0.00
CF5M	0.10	0.03	1.54	4.77	0.83	5.91	2.47	2.16	0.04	0.01	0.00	0.18
IN.	0.11	0.04	1.78	5.50	0.86	6.82	2.76	2.50	0.04	0.01	0.00	0.20

03418070 ROARING RIVER ABOVE GAINESBORO, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

MEAN	75.46	174.7	404.7	536.1	519.4	603.3	366.8	272.7	88.28	33.91	37.86	66.69
MAX	476	539	1440	1271	1426	2507	1015	1361	483	147	331	261
(WY)	1990	1980	1991	1979	1989	1975	1979	1984	1981	1989	1982	1982
MIN	0.000	0.39	0.43	0.22	74.3	36.6	8.05	0.46	0.000	0.058	0.000	0.000
(WY)	1979	1981	1981	1981	1981	1983	1986	1985	1984	1984	1975	1976

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1975 - 2002

ANNUAL TOTAL	97532.85											
ANNUAL MEAN	267.2									264.1		
HIGHEST ANNUAL MEAN										455		1975
LOWEST ANNUAL MEAN										83.0		1986
HIGHEST DAILY MEAN	9650	Mar 18								15800	Mar 13	1975
LOWEST DAILY MEAN	a0.00	Oct 1								a0.00	Oct 28	1974
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 26								0.00	Oct 28	1974
MAXIMUM PEAK FLOW	13300	Mar 18								22400	Mar 12	1975
MAXIMUM PEAK STAGE	17.93	Mar 18								21.83	Mar 12	1975
ANNUAL RUNOFF (CFSM)	1.52									1.50		
ANNUAL RUNOFF (INCHES)	20.61									20.38		
10 PERCENT EXCEEDS	586									636		
50 PERCENT EXCEEDS	28									38		
90 PERCENT EXCEEDS	0.00									0.00		

a See REMARKS.

CUMBERLAND RIVER BASIN

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°17'12", long 85°56'27", Smith County, Hydrologic Unit 05130108, on right bank in powerhouse at Cordell Hull Dam, 2.7 mi north of Carthage, and at mile 313.5.

DRAINAGE AREA.--8,095 mi².

PERIOD OF RECORD.--October 1980 to September 1997, October 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1997, October 1999 to current year.

pH: October 1990 to September 1997, October 1999 to current year.

WATER TEMPERATURE: October 1980 to September 1997, October 1999 to current year.

DISSOLVED OXYGEN: October 1980 to September 1997, October 1999 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cordell Hull Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions. All parameters affected by release from Cordell Hull Dam. Records for water temperature, specific conductance and pH are good, dissolved oxygen records are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 290 microsiemens, Mar. 27, 1990; minimum, 140 microsiemens, Sept. 3, 1984.

pH: Maximum, 8.9 units, Aug. 14, 29, 2002; minimum, 6.6 units, May 31, 1994, Jan. 1, 2002.

WATER TEMPERATURE: Maximum, 23.7°C, July 13, 1995 July 31, 1997; minimum, 2.0°C, Jan. 12, 15-21, 1981.

DISSOLVED OXYGEN: Maximum, 15.5 mg/L, Mar. 4, 1983; minimum, 3.7 mg/L, Aug. 5, 1988.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 250 microsiemens, Dec. 21; minimum, 167 microsiemens, Mar. 20.

pH: Maximum, 8.9 units, Aug. 14, 29; minimum, 6.6 units, Jan. 1.

WATER TEMPERATURE: Maximum, 23.6°C, July 10; minimum, 4.9°C, Jan. 20.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Jan. 17, 18, 19.

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	218	210	212	228	220	223	222	217	218	236	233	235
2	213	211	211	224	221	223	221	217	218	238	235	237
3	215	213	214	229	223	224	223	218	220	238	237	238
4	217	212	214	230	222	224	228	218	222	242	238	239
5	216	213	214	228	222	224	225	218	221	242	239	240
6	216	212	213	230	222	225	221	219	219	242	238	240
7	219	211	213	225	222	223	222	219	220	241	240	240
8	216	212	214	231	222	224	223	217	221	241	241	241
9	216	213	214	227	222	224	226	221	223	241	239	240
10	215	212	213	233	222	224	229	225	227	240	239	240
11	215	211	212	229	222	225	231	227	229	240	238	239
12	217	212	213	230	221	224	233	229	230	240	238	239
13	217	213	214	225	221	222	238	230	233	240	238	239
14	214	208	211	224	220	222	239	235	237	241	237	238
15	218	210	211	225	220	222	240	236	238	241	238	238
16	218	210	212	225	219	221	248	240	242	240	238	239
17	215	211	212	224	219	221	246	241	243	238	237	237
18	216	211	213	225	218	220	247	243	245	239	235	236
19	217	211	213	222	218	220	248	245	246	237	232	234
20	217	211	214	223	218	220	249	247	248	236	231	232
21	219	213	216	221	217	219	250	247	248	235	231	233
22	219	214	216	222	217	219	249	246	247	234	231	232
23	219	214	216	225	218	220	248	242	246	239	230	234
24	225	211	217	225	215	219	245	241	243	230	227	228
25	220	213	216	220	217	218	243	237	239	229	187	208
26	221	215	217	221	216	218	240	230	235	187	169	174
27	220	216	218	220	216	218	232	228	229	170	168	169
28	222	214	218	225	217	219	229	227	228	180	170	176
29	220	215	218	221	217	219	229	227	228	180	176	177
30	225	219	220	219	217	218	234	228	231	184	179	182
31	226	219	221	---	---	---	235	232	233	192	183	187
MONTH	226	208	215	233	215	221	250	217	232	242	168	225

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	209	191	199	229	227	228	213	206	212	215	201	207
2	213	208	211	230	227	228	206	199	201	205	199	201
3	220	213	217	229	226	227	204	198	200	208	201	204
4	222	220	221	227	226	226	212	204	209	215	207	210
5	223	222	222	228	226	226	214	212	214	217	215	216
6	225	223	224	227	225	225	214	211	213	218	213	215
7	225	224	224	227	225	225	211	208	210	219	214	215
8	231	224	227	231	225	226	209	208	209	216	212	214
9	231	229	230	227	225	226	210	208	210	216	212	213
10	233	229	230	229	226	227	210	208	209	216	213	215
11	233	231	232	231	226	228	209	206	207	218	214	216
12	234	232	233	229	226	227	209	206	207	216	214	215
13	233	231	232	229	227	228	206	204	205	217	208	213
14	232	231	231	232	229	229	204	203	203	209	207	208
15	235	231	232	231	229	230	204	202	202	208	205	207
16	235	231	232	233	229	231	205	202	203	206	204	205
17	232	230	231	232	229	230	206	203	204	208	206	207
18	233	230	231	232	213	228	209	204	206	207	205	206
19	232	230	231	213	172	192	213	206	208	206	202	204
20	231	229	230	178	167	171	213	205	208	203	199	201
21	230	229	229	205	178	189	214	205	207	199	190	196
22	230	229	229	211	205	210	219	207	212	190	182	186
23	230	229	229	---	---	---	216	209	211	198	183	190
24	231	228	229	222	214	219	217	213	214	204	198	201
25	230	228	228	224	223	224	217	206	210	206	203	204
26	230	228	228	224	223	224	214	206	208	205	201	202
27	229	227	228	223	220	222	217	208	211	205	196	199
28	228	227	227	220	215	217	213	209	211	203	195	198
29	---	---	---	216	212	214	218	210	213	198	195	196
30	---	---	---	212	210	211	216	210	213	196	194	195
31	---	---	---	211	209	210	---	---	---	197	193	194
MONTH	235	191	227	233	167	220	219	198	208	219	182	205
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	198	193	194	197	192	195	191	189	190	194	189	192
2	200	195	197	197	191	194	191	188	190	198	189	192
3	202	194	198	198	189	192	191	188	189	196	190	192
4	202	194	197	196	190	192	193	188	189	195	189	192
5	200	195	197	199	191	194	191	187	189	195	190	192
6	202	194	197	199	191	195	192	188	189	197	194	195
7	201	194	197	196	190	193	194	189	190	---	---	---
8	203	194	197	199	189	193	198	189	192	---	---	---
9	201	194	197	198	190	192	198	189	192	187	185	185
10	202	194	198	195	191	192	198	189	193	188	185	186
11	208	196	201	198	192	194	199	190	194	188	186	186
12	204	196	199	194	190	192	199	189	193	---	---	---
13	203	195	199	195	190	191	202	188	192	---	---	---
14	200	196	198	196	189	192	197	187	191	189	185	186
15	202	195	198	193	188	190	189	185	187	191	185	188
16	203	193	197	193	188	190	197	184	187	191	184	187
17	197	192	194	196	188	192	195	183	186	193	185	187
18	200	193	194	192	187	189	194	182	186	189	185	187
19	201	195	196	195	187	189	193	186	189	190	186	188
20	200	195	197	195	188	191	192	188	190	191	187	188
21	200	195	196	200	189	194	192	187	189	193	185	188
22	197	194	196	199	188	195	189	185	187	190	185	187
23	200	195	197	200	188	195	190	184	186	190	185	186
24	200	195	196	196	189	191	188	182	185	188	184	186
25	198	194	196	198	189	193	189	182	185	188	183	186
26	198	194	196	197	189	193	193	184	188	189	182	184
27	202	194	196	199	189	195	192	188	189	188	181	183
28	200	194	196	198	190	193	193	188	191	183	181	182
29	196	192	194	197	190	193	197	189	191	183	181	182
30	200	192	196	198	191	194	198	189	192	191	179	183
31	---	---	---	200	187	192	197	189	192	---	---	---
MONTH	208	192	197	200	187	193	202	182	189	198	179	187

CUMBERLAND RIVER BASIN

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

PH, WH, FIELD FROM THE DCP, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.8	7.2	7.9	7.6	7.7	7.6	7.5	6.6	7.5	7.4	7.9	7.9
2	7.8	7.4	7.9	7.6	7.6	7.6	7.6	6.8	7.5	7.4	7.9	7.9
3	7.9	7.4	7.8	7.5	7.6	7.6	7.7	7.6	7.5	7.5	7.9	7.8
4	7.9	7.4	7.9	7.4	7.6	7.5	7.7	7.5	7.6	7.5	7.9	7.8
5	8.0	7.4	7.9	7.7	7.8	7.3	7.8	7.6	7.6	7.5	8.0	7.8
6	7.8	7.6	7.8	7.5	7.8	7.4	7.7	7.5	7.6	7.5	7.9	7.8
7	7.9	7.3	7.9	7.6	7.5	7.3	7.7	7.6	7.6	7.6	8.0	7.8
8	7.8	7.4	7.9	7.6	7.7	7.3	7.8	7.6	7.6	7.6	8.0	7.8
9	7.8	7.4	7.8	7.6	7.6	7.5	7.8	7.6	7.6	7.6	8.0	7.9
10	7.9	7.4	7.7	7.3	7.7	7.4	7.9	7.7	7.6	7.5	8.1	7.8
11	7.9	7.5	7.6	7.3	7.8	7.6	7.9	7.7	7.6	7.6	8.1	7.8
12	7.8	7.5	7.7	7.4	7.7	7.5	7.9	7.7	7.6	7.6	8.1	7.8
13	7.7	7.6	7.7	7.6	7.6	7.1	7.9	7.7	7.6	7.5	8.3	7.9
14	7.8	7.6	7.9	7.6	7.6	7.3	7.9	7.8	7.6	7.5	8.4	8.2
15	7.8	7.5	7.9	7.8	7.5	7.1	7.9	7.7	7.6	7.5	8.3	8.3
16	7.8	7.3	7.8	7.8	7.4	7.1	7.9	7.8	7.6	7.5	8.3	8.1
17	7.8	7.4	7.8	7.7	7.7	7.2	8.0	7.8	7.6	7.5	8.2	8.0
18	7.8	7.2	7.8	7.7	7.7	7.1	7.9	7.8	7.6	7.5	8.0	7.8
19	7.9	7.3	7.9	7.5	7.6	7.3	7.9	7.7	7.7	7.5	7.8	7.6
20	7.8	7.4	7.8	7.6	7.5	7.3	7.8	7.7	7.9	7.6	7.6	7.6
21	7.8	7.2	7.8	7.6	7.6	7.2	7.7	7.6	7.9	7.8	7.7	7.6
22	7.9	7.5	7.8	7.7	7.6	7.2	7.7	7.7	7.9	7.8	7.7	7.7
23	8.0	7.3	7.8	7.7	7.4	7.2	7.9	7.6	7.9	7.8	---	---
24	8.2	7.4	7.7	7.6	7.4	7.0	7.9	7.7	7.9	7.8	7.7	7.7
25	8.0	7.3	7.8	7.6	7.4	7.2	7.7	7.6	8.0	7.8	7.8	7.7
26	7.8	7.3	7.7	7.6	7.4	7.2	7.6	7.5	7.9	7.8	7.8	7.7
27	7.9	7.3	7.7	7.6	7.7	7.4	7.5	7.5	7.9	7.8	7.8	7.7
28	7.9	7.4	7.7	7.6	7.7	6.8	7.5	7.5	7.9	7.9	7.7	7.7
29	7.9	7.3	7.7	7.6	7.5	7.2	7.5	7.4	---	---	7.7	7.7
30	7.8	7.7	7.7	7.6	7.6	7.0	7.5	7.3	---	---	7.7	7.7
31	8.0	7.7	---	---	7.7	7.1	7.4	7.3	---	---	7.7	7.7
MONTH	8.2	7.2	7.9	7.3	7.8	6.8	8.0	6.6	8.0	7.4	8.4	7.6
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	7.7	8.0	7.5	8.2	7.8	8.0	7.7	7.8	7.6	8.7	8.0
2	7.7	7.6	7.8	7.4	8.2	7.7	8.2	7.6	8.2	7.5	8.5	8.0
3	7.7	7.6	7.7	7.3	8.1	7.5	8.2	7.7	8.3	7.6	8.6	8.0
4	7.8	7.7	7.8	7.4	8.2	7.5	8.4	7.7	8.0	7.6	8.6	7.9
5	7.8	7.7	7.7	7.5	8.2	7.7	8.3	7.7	8.1	7.7	8.7	7.9
6	7.8	7.8	7.7	7.4	8.0	7.5	8.3	7.6	8.2	7.6	---	---
7	7.8	7.7	7.7	7.3	8.5	7.6	8.4	7.8	8.3	7.5	---	---
8	7.8	7.8	7.8	7.4	8.6	7.6	8.0	7.7	8.4	7.6	---	---
9	7.8	7.8	7.7	7.4	8.4	7.6	8.2	7.6	8.2	7.6	---	---
10	7.8	7.8	7.8	7.5	8.1	7.6	8.3	7.7	8.3	7.6	8.8	7.8
11	7.8	7.7	7.8	7.5	7.9	7.6	8.3	7.7	8.2	7.6	7.8	7.7
12	7.8	7.7	7.9	7.5	8.0	7.6	8.3	7.8	8.1	7.6	---	---
13	7.8	7.7	7.8	7.7	8.0	7.6	8.3	7.7	8.1	7.4	8.1	7.1
14	7.8	7.8	7.8	7.8	7.6	7.5	8.1	7.6	8.9	7.6	8.1	6.9
15	7.8	7.7	7.9	7.7	7.7	7.4	8.2	7.6	8.6	7.9	7.7	7.0
16	8.1	7.7	7.8	7.7	7.9	7.4	8.2	7.6	8.5	7.9	7.8	7.1
17	8.0	7.7	7.8	7.7	7.5	7.3	8.0	7.6	8.6	7.7	7.9	7.2
18	8.2	7.5	7.8	7.7	7.7	7.3	7.9	7.6	8.2	7.8	8.0	6.8
19	8.1	7.4	7.8	7.8	8.2	7.5	8.2	7.5	8.5	7.7	8.0	7.1
20	8.0	7.4	7.8	7.8	8.0	7.6	8.2	7.6	8.3	8.0	7.8	7.2
21	8.0	7.5	7.8	7.7	8.0	7.6	7.9	7.5	8.8	7.9	7.6	6.8
22	7.8	7.4	7.7	7.6	8.1	7.7	8.1	7.4	8.8	7.9	7.4	7.0
23	7.8	7.4	7.8	7.6	8.2	7.7	7.8	7.4	8.6	7.9	7.6	7.0
24	7.9	7.2	7.8	7.7	8.0	7.6	8.1	7.5	8.4	8.0	7.7	7.3
25	8.0	7.4	7.9	7.8	8.1	7.6	8.4	7.4	8.3	7.9	7.8	7.4
26	8.0	7.6	7.9	7.7	8.2	7.7	8.4	7.5	8.5	7.8	7.8	7.3
27	8.1	7.4	7.9	7.6	7.9	7.7	8.1	7.4	8.6	8.0	7.8	7.3
28	8.0	7.6	8.2	7.6	7.9	7.6	8.1	7.4	8.3	8.0	7.6	7.3
29	8.0	7.5	8.1	7.9	8.2	7.7	8.0	7.4	8.9	8.0	7.6	7.3
30	8.1	7.5	8.1	7.9	8.2	7.7	7.9	7.4	8.6	8.0	7.6	7.2
31	---	---	8.2	7.9	---	---	8.0	7.4	8.8	7.9	---	---
MONTH	8.2	7.2	8.2	7.3	8.6	7.3	8.4	7.4	8.9	7.4	8.8	6.8

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	17.1	16.4	16.7	14.9	14.2	14.6	12.9	12.5	12.6	7.8	7.4	7.6
2	17.0	16.4	16.7	15.6	14.4	14.8	12.7	12.3	12.6	7.4	6.8	7.1
3	17.3	16.3	16.7	14.8	14.4	14.5	12.9	12.3	12.6	6.9	6.2	6.6
4	17.3	16.4	16.9	14.9	14.1	14.5	12.6	12.2	12.4	6.7	5.9	6.4
5	17.5	16.2	17.0	14.7	14.2	14.4	13.0	12.2	12.5	6.5	5.9	6.2
6	16.9	16.1	16.4	14.6	14.1	14.3	13.3	12.2	12.6	6.1	5.9	6.0
7	16.7	16.2	16.4	14.7	13.8	14.2	12.9	12.6	12.7	6.0	5.6	5.8
8	16.8	16.2	16.4	14.9	13.9	14.2	13.2	12.7	12.9	5.7	5.3	5.5
9	16.7	16.1	16.3	14.3	13.8	14.0	12.9	12.6	12.8	5.8	5.2	5.5
10	16.7	16.2	16.5	14.2	13.6	13.9	12.7	12.5	12.6	5.9	5.4	5.6
11	16.9	16.6	16.7	14.0	13.6	13.7	12.6	12.4	12.6	5.9	5.6	5.7
12	16.9	16.6	16.7	13.8	13.4	13.6	12.7	12.4	12.5	5.8	5.5	5.7
13	17.1	16.6	16.8	13.6	13.2	13.3	12.8	12.6	12.7	5.8	5.3	5.6
14	17.2	16.9	17.1	13.6	13.0	13.3	12.7	12.6	12.6	6.0	5.5	5.7
15	16.9	16.6	16.7	13.4	12.9	13.1	12.6	12.4	12.5	5.8	5.3	5.6
16	16.8	16.3	16.5	13.2	12.7	12.9	12.6	12.3	12.4	5.5	5.3	5.4
17	16.4	16.0	16.2	13.2	12.6	12.9	12.8	12.5	12.6	5.7	5.3	5.4
18	16.0	15.7	15.9	13.3	12.7	13.0	12.5	12.0	12.4	5.3	5.1	5.2
19	16.0	15.7	15.9	13.2	12.7	12.9	12.4	12.0	12.2	5.2	5.0	5.1
20	15.9	15.5	15.8	13.0	12.5	12.7	12.1	11.7	11.9	5.2	4.9	5.0
21	15.8	15.4	15.6	12.6	12.2	12.4	12.1	11.3	11.7	5.7	5.1	5.4
22	16.0	15.5	15.7	12.4	11.9	12.2	11.5	11.1	11.3	6.3	5.2	5.8
23	17.0	15.6	16.1	12.3	12.0	12.1	11.2	10.9	11.1	7.0	6.2	6.5
24	16.7	16.1	16.4	12.5	12.1	12.3	11.1	10.6	10.9	8.3	7.0	7.7
25	16.8	15.8	16.3	12.8	12.1	12.3	10.7	10.1	10.5	9.5	8.3	9.0
26	16.1	15.4	15.8	12.5	12.2	12.3	10.1	9.7	10	9.9	9.5	9.7
27	15.7	15.1	15.4	12.8	12.1	12.4	9.8	9.3	9.5	9.9	9.7	9.8
28	15.4	14.8	15.1	12.8	12.4	12.5	9.4	9.0	9.2	9.9	9.7	9.8
29	15.4	14.6	15.0	12.9	12.5	12.7	9.0	8.6	8.9	10.4	9.8	10.1
30	15.1	14.5	14.8	12.9	12.7	12.8	8.8	8.3	8.6	10.4	10.2	10.3
31	15.2	14.4	14.7	---	---	---	8.3	7.7	8.1	11.0	10.3	10.5
MONTH	17.5	14.4	16.2	15.6	11.9	13.3	13.3	7.7	11.6	11.0	4.9	6.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.1	10.3	10.7	7.6	7.3	7.5	10.4	10.0	10.2	16.4	15.9	16.2
2	10.3	10.1	10.2	7.8	7.5	7.6	10.7	10.2	10.4	16.2	15.8	16.0
3	10.2	10.0	10.1	7.8	7.2	7.6	10.9	10.6	10.8	15.9	15.6	15.7
4	10.0	9.7	9.8	7.3	6.7	7.0	10.9	10.5	10.7	15.8	15.3	15.6
5	9.7	9.4	9.5	7.6	6.5	7.0	10.6	10.3	10.5	15.5	15.2	15.4
6	9.4	8.8	9.2	7.2	6.7	7.0	10.5	10.0	10.2	15.4	14.9	15.2
7	8.8	7.9	8.4	8.0	7.1	7.5	10.5	9.8	10.1	15.0	14.6	14.8
8	7.9	7.3	7.6	8.2	7.4	7.6	10.8	10.3	10.5	15.2	14.6	14.9
9	7.4	7.1	7.3	8.4	7.8	8.2	10.9	10.7	10.8	14.9	14.6	14.8
10	7.6	7.3	7.4	8.7	8.0	8.4	11.6	10.9	11.2	15.1	14.8	14.9
11	7.8	7.4	7.6	9.4	8.1	8.6	12.0	11.5	11.7	15.2	14.8	15.0
12	7.8	7.5	7.6	9.1	8.4	8.7	12.0	11.6	11.8	15.6	14.8	15.1
13	7.9	7.5	7.7	9.1	8.8	9.0	11.9	11.5	11.7	15.3	14.9	15.1
14	8.2	7.7	7.9	9.9	8.8	9.2	12.2	11.9	12.0	15.1	14.5	14.8
15	8.3	8.0	8.2	10.4	9.5	9.7	12.8	12.0	12.3	14.7	14.4	14.5
16	8.4	8.1	8.2	10.2	9.7	9.9	13.7	12.6	12.9	14.6	14.3	14.4
17	8.5	8.1	8.2	10.8	9.8	10.2	13.9	12.9	13.3	14.9	14.6	14.7
18	8.6	8.0	8.2	11.4	10.8	11.0	15.0	13.3	14.0	14.8	14.2	14.6
19	8.5	8.0	8.3	12.1	11.4	11.8	15.2	13.6	14.2	14.2	13.5	13.8
20	8.9	8.3	8.6	12.2	12.1	12.2	15.2	13.9	14.6	13.6	13.3	13.5
21	9.1	8.7	8.8	12.2	10.9	11.7	16.1	14.8	15.5	13.6	13.4	13.5
22	9.0	8.8	8.9	12.1	10.2	10.4	16.1	15.0	15.4	14.1	13.6	13.8
23	8.8	8.6	8.7	---	---	---	16.1	14.8	15.6	14.1	13.8	13.9
24	8.7	8.4	8.6	9.7	9.3	9.5	16.3	15.6	15.8	14.2	13.6	13.9
25	9.3	8.6	8.8	9.6	9.3	9.5	16.3	16.0	16.2	14.5	13.9	14.1
26	9.0	8.5	8.8	9.6	9.5	9.5	16.1	15.7	15.9	14.6	14.2	14.3
27	8.5	8.0	8.3	9.5	9.3	9.4	15.8	15.3	15.5	15.0	14.5	14.7
28	8.1	7.6	7.8	9.7	9.1	9.4	17.1	15.4	16.0	15.7	14.8	15.2
29	---	---	---	9.9	9.3	9.6	16.2	15.4	15.7	15.9	15.2	15.5
30	---	---	---	9.8	9.7	9.7	16.5	15.7	16.0	16.5	15.7	16.0
31	---	---	---	10.1	9.7	9.9	---	---	---	17.2	16.1	16.7
MONTH	11.1	7.1	8.6	12.2	6.5	9.1	17.1	9.8	13.1	17.2	13.3	14.9

CUMBERLAND RIVER BASIN

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.6	16.3	16.9	21.4	20.1	20.8	21.3	20.3	20.9	22.5	20.2	21.1
2	17.3	16.5	16.9	22.3	20.1	20.7	22.6	19.9	21.0	21.8	20.3	21.0
3	17.0	16.5	16.7	22.4	19.8	20.8	23.1	20.1	21.3	22.2	20.0	21.0
4	18.1	16.4	17.0	23.2	20.1	21.2	22.2	20.1	21.2	22.2	20.1	21.1
5	18.6	16.7	17.5	22.9	20.1	21.4	22.4	20.1	21.1	22.6	20.5	21.2
6	17.9	16.7	17.4	22.7	20.4	21.0	22.7	20.6	21.2	20.8	20.5	20.6
7	19.7	17.0	17.7	22.9	20.3	21.1	23.1	20.5	21.3	---	---	---
8	20.2	17.0	18.2	21.8	20.1	21.0	23.5	20.5	21.8	---	---	---
9	20.3	17.5	18.6	22.8	20.4	21.2	22.8	20.6	21.8	22.6	20.8	21.5
10	20.4	18.1	18.7	23.6	20.3	21.5	23.2	20.7	21.7	22.8	20.3	21.1
11	19.9	17.6	18.7	23.4	20.3	21.6	22.6	20.8	21.6	20.8	20.6	20.7
12	21.0	18.0	19.1	22.9	20.2	21.5	22.1	20.9	21.3	---	---	---
13	21.7	18.7	19.8	23.1	20.4	21.7	22.2	20.4	21.3	22.4	20.4	21.7
14	20.2	18.7	19.5	22.4	20.7	21.4	23.4	20.1	21.5	22.4	20.5	21.5
15	21.3	19.2	19.9	22.3	20.5	21.2	22.4	19.9	21.3	22.2	20.5	21.1
16	22.1	19.6	20.2	22.0	20.2	21.0	22.1	19.7	21.0	21.8	20.2	20.9
17	21.1	19.8	20.4	21.4	19.6	20.7	22.1	19.7	20.8	21.8	20.1	20.8
18	21.2	19.9	20.4	20.9	19.0	20.0	21.3	19.5	20.4	22.3	20.0	20.9
19	23.2	20.0	21.1	21.6	18.9	19.8	22.2	19.9	20.5	22.4	19.9	21.3
20	22.8	20.2	21.4	21.7	19.0	19.9	21.4	20.1	20.8	22.2	20.4	21.3
21	22.8	20.0	21.1	20.7	19.1	20.1	22.6	20.2	21.1	21.4	20.1	20.6
22	22.9	20.0	21.1	21.1	19.1	19.8	22.7	19.9	21.1	21.4	20.1	20.6
23	23.0	20.0	21.2	20.6	19.1	19.3	22.3	19.6	20.8	20.9	19.7	20.3
24	22.7	19.9	21.2	21.8	19.1	20.3	21.9	19.8	20.8	20.9	19.9	20.3
25	22.8	19.9	21.2	22.7	19.4	20.6	21.5	19.7	20.5	20.6	19.9	20.3
26	23.0	20.1	21.3	22.7	19.5	20.9	22.0	19.7	20.5	20.3	19.8	20.2
27	21.4	20.0	20.8	22.0	19.6	20.7	22.0	19.9	20.6	20.2	19.7	20.0
28	20.9	19.7	20.3	22.2	19.7	20.7	21.1	20.0	20.6	19.9	19.3	19.6
29	22.3	19.8	20.5	22.7	20.0	21.2	22.8	20.1	21.1	19.5	19.1	19.2
30	22.2	19.9	20.7	21.8	20.1	20.8	22.2	20.2	21.0	19.4	18.6	19.0
31	---	---	---	22.4	20.2	21.0	22.5	20.3	21.1	---	---	---
MONTH	23.2	16.3	19.5	23.6	18.9	20.8	23.5	19.5	21.1	22.8	18.6	20.7

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	9.1	5.7	8.5	10.6	7.2	9.6	9.6	9.2	9.5	10.2	9.4	10.0
2	9.1	8.2	8.6	11.4	10.3	10.7	9.5	9.1	9.3	10.5	10.1	10.4
3	9.5	8.0	8.8	11.5	9.0	10.7	9.5	9.1	9.3	11.0	10.4	10.7
4	9.5	8.5	9.0	11.7	9.0	10.8	9.4	8.2	9.1	11.0	10.6	10.8
5	9.6	8.6	9.1	12.2	11.2	11.6	9.9	8.4	9.2	11.6	10.6	11.0
6	9.3	8.6	8.9	11.9	9.2	11.6	10.2	9.2	9.6	11.4	10.8	11.1
7	9.4	7.7	8.9	12.4	11.6	12.0	9.8	8.6	9.4	11.8	11.1	11.4
8	9.2	8.5	9.0	12.4	10.3	11.8	9.5	8.7	9.2	12.2	11.3	11.8
9	9.4	7.5	9.0	12.3	11.3	11.8	9.3	8.7	9.1	12.3	11.4	11.9
10	9.6	7.5	9.3	11.8	8.3	11.3	9.0	8.7	8.9	12.5	11.7	12.2
11	9.5	9.1	9.3	---	---	---	9.0	8.1	8.8	12.5	12.0	12.3
12	9.3	8.7	9.1	---	---	---	9.1	7.5	8.7	12.7	12.2	12.4
13	9.1	8.7	8.9	---	---	---	9.0	8.7	8.9	12.9	12.2	12.6
14	9.3	8.8	9.1	10.7	10.2	10.5	8.9	8.5	8.7	13.2	12.6	12.9
15	9.2	8.6	9.0	10.7	10.1	10.5	9.2	8.7	8.9	13.2	12.2	12.9
16	9.4	8.5	9.1	10.7	10.3	10.4	9.3	8.8	9.2	13.2	12.9	13.1
17	9.2	5.9	8.8	10.6	10.1	10.3	9.6	9.1	9.3	13.5	13.0	13.2
18	9.4	4.5	8.6	10.5	10.1	10.2	9.6	8.8	9.4	13.5	12.9	13.3
19	9.5	5.5	9.0	10.7	9.4	10	9.6	8.6	9.4	13.5	13.2	13.4
20	9.5	5.1	9.0	10.3	9.3	9.9	9.9	9.0	9.6	13.4	13.0	13.2
21	9.4	6.2	8.7	10.3	8.8	9.9	10.2	9.0	9.9	13.2	13.0	13.1
22	9.7	6.7	9.3	10.6	9.4	10.2	10.4	9.6	10	13.1	12.6	13.0
23	9.9	8.8	9.5	10.4	9.9	10.2	10.2	9.6	9.9	12.8	12.2	12.5
24	10.2	8.5	9.5	10.3	9.6	10.1	10.1	9.1	9.8	12.2	11.5	11.8
25	9.6	3.7	8.7	10.4	9.9	10.2	10.0	8.9	9.7	11.5	10.4	10.9
26	9.2	6.3	8.8	10.2	9.8	10.0	9.9	8.9	9.5	10.4	10.1	10.2
27	9.3	4.3	8.3	10.2	9.5	9.9	9.9	8.9	9.5	10.2	10.0	10.2
28	9.3	7.3	8.9	10.1	9.4	9.9	9.8	8.6	9.5	10.1	9.5	10.0
29	9.9	5.3	8.8	9.8	9.5	9.7	9.8	9.2	9.6	10.1	9.5	10
30	9.9	8.0	9.5	9.8	9.6	9.7	9.9	9.0	9.6	10.1	9.6	10
31	10.5	9.5	9.8	---	---	---	10.3	9.2	9.9	12.0	9.6	10.4
MONTH	10.5	3.7	9.0	12.4	7.2	10.5	10.4	7.5	9.4	13.5	9.4	11.7

03418420 CUMBERLAND RIVER BELOW CORDELL HULL DAM, TN--Continued

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.6	10.0	10.3	12.2	12.0	12.1	11.3	11.1	11.3	10.9	4.9	9.8
2	10.8	10.2	10.6	12.2	12.0	12.1	11.1	11.0	11.0	9.8	7.5	9.5
3	10.8	10.7	10.8	12.5	11.9	12.1	11.0	10.9	11.0	9.5	6.3	8.9
4	10.9	10.6	10.7	12.3	12.0	12.2	11.2	11.0	11.1	9.7	8.8	9.4
5	11.0	10.5	10.9	12.8	12.2	12.5	11.4	11.2	11.3	9.8	9.2	9.6
6	11.1	10.0	10.8	13.2	12.3	12.5	11.5	11.3	11.4	9.8	8.0	9.4
7	11.2	10.7	11.0	12.8	12.3	12.6	11.5	11.4	11.4	10.0	8.1	9.6
8	11.4	11.0	11.2	12.7	12.2	12.5	11.6	11.3	11.5	10.2	9.2	9.8
9	11.5	11.0	11.3	12.7	12.0	12.5	11.4	11.3	11.3	10.4	9.6	10.1
10	11.7	11.1	11.5	12.6	11.9	12.4	11.3	11.2	11.3	10.6	9.7	10.2
11	11.7	11.2	11.6	12.6	11.9	12.3	11.3	11.1	11.2	10.6	9.7	10.3
12	11.8	11.4	11.7	12.7	11.4	12.3	11.3	11.0	11.2	10.6	8.7	10.2
13	11.8	11.6	11.7	12.9	12.0	12.5	11.4	11.1	11.2	10.2	9.7	10.1
14	11.8	11.4	11.7	12.9	12.3	12.6	11.3	11.1	11.2	10.2	9.9	10.1
15	11.8	11.4	11.7	12.8	12.3	12.6	11.4	10.8	11.1	10.4	9.6	10.2
16	11.8	11.3	11.7	13.0	12.1	12.7	11.9	10.9	11.2	10.6	10.0	10.2
17	11.9	11.5	11.8	12.8	12.2	12.6	11.8	10.9	11.2	10.1	9.7	9.9
18	12.0	11.7	11.8	12.2	11.0	11.8	12.2	10.0	11.3	10.0	9.6	9.8
19	12.0	11.7	11.9	11.6	10.2	10.6	11.8	10.1	11.2	10.3	10.0	10.2
20	12.0	11.4	11.8	10.2	10.0	10.1	11.5	9.5	10.9	10.4	10.2	10.3
21	11.7	11.5	11.6	10.8	10.2	10.4	11.2	9.4	10.8	11.5	9.6	10.1
22	11.7	11.5	11.6	11.0	10.8	11.0	10.6	9.4	10.0	9.6	9.3	9.5
23	11.9	11.6	11.7	---	---	---	10.6	8.2	9.8	10.6	9.3	9.7
24	11.9	11.7	11.8	11.6	11.2	11.4	10.2	7.4	9.7	10.5	9.3	10.1
25	12.1	11.7	11.9	12.2	11.6	11.7	10.4	7.4	10.1	10.8	9.7	10.5
26	12.0	11.6	11.8	11.7	11.6	11.6	10.6	8.6	10.1	10.9	9.9	10.6
27	12.1	11.7	11.9	11.6	11.6	11.6	10.9	7.8	10	11.2	7.9	10.5
28	12.2	11.9	12.0	11.6	11.4	11.5	10.8	8.5	10.1	11.8	7.9	10.7
29	---	---	---	11.5	11.3	11.4	10.9	7.7	10.1	11.7	10.5	11.0
30	---	---	---	11.6	11.4	11.5	11.0	8.2	10.1	11.8	10.6	11.2
31	---	---	---	11.6	11.3	11.5	---	---	---	11.9	10.4	11.3
MONTH	12.2	10.0	11.5	13.2	10.0	11.9	12.2	7.4	10.8	11.9	4.9	10.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	11.9	10.6	11.4	9.0	6.2	8.2	9.9	7.3	9.0	---	---	---
2	11.7	10.4	11.2	9.7	7.0	8.2	11.0	7.1	9.2	---	---	---
3	---	---	---	9.4	7.6	8.5	10.9	5.6	9.0	---	---	---
4	---	---	---	9.8	6.4	8.6	10.2	6.0	8.5	---	---	---
5	---	---	---	9.8	6.4	8.3	10.5	3.8	8.4	---	---	---
6	---	---	---	9.8	5.6	8.2	10.2	4.9	8.0	---	---	---
7	---	---	---	9.9	7.3	8.4	10.2	2.8	7.0	---	---	---
8	---	---	---	8.8	6.7	8.2	10.0	4.5	8.1	---	---	---
9	---	---	---	9.0	4.8	7.8	9.4	2.8	6.8	---	---	---
10	---	---	---	9.1	7.2	7.9	9.5	3.5	6.4	---	---	---
11	8.7	6.1	7.7	9.2	6.8	8.0	9.5	2.4	5.7	---	---	---
12	8.8	6.5	7.7	9.4	7.2	8.3	8.9	2.1	5.3	---	---	---
13	8.5	4.6	7.1	9.8	8.4	8.9	9.3	2.1	5.5	---	---	---
14	7.6	5.5	7.0	9.9	6.8	8.7	10.2	2.1	6.4	---	---	---
15	7.1	5.1	6.2	10.4	7.9	9.0	8.8	6.1	7.3	---	---	---
16	---	---	---	10.6	8.5	9.3	---	---	---	---	---	---
17	---	---	---	10.0	7.6	9.0	---	---	---	---	---	---
18	---	---	---	9.9	8.0	9.0	---	---	---	---	---	---
19	9.4	6.9	7.7	10.5	7.4	9.1	8.6	7.3	8.0	---	---	---
20	8.7	7.1	7.7	10.7	7.7	9.4	7.3	6.5	7.0	---	---	---
21	8.9	6.9	7.8	10.4	7.6	9.0	6.8	5.5	6.1	---	---	---
22	8.9	7.3	7.9	10.8	7.1	8.9	---	---	---	---	---	---
23	8.9	6.5	7.6	---	---	---	---	---	---	---	---	---
24	8.7	6.4	7.6	10.6	7.8	9.5	---	---	---	---	---	---
25	8.8	6.2	7.4	11.3	7.5	9.4	---	---	---	---	---	---
26	9.2	7.4	8.0	11.1	8.6	9.5	---	---	---	---	---	---
27	8.5	7.2	8.0	10.6	8.3	9.3	---	---	---	---	---	---
28	8.4	7.0	7.9	10.4	8.0	9.2	---	---	---	---	---	---
29	9.6	7.4	8.3	10.0	5.5	9.0	---	---	---	---	---	---
30	9.6	6.5	8.0	9.8	6.4	8.4	---	---	---	---	---	---
31	---	---	---	10.4	6.4	8.9	---	---	---	---	---	---
MONTH	11.9	4.6	8.0	11.3	4.8	8.7	11.0	2.1	7.3	---	---	---

CUMBERLAND RIVER BASIN

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN

LOCATION.--Lat 35°42'32", long 85°43'46", Warren County, Hydrologic Unit 05130107, on left bank at downstream side of bridge on U.S. Highway 70S, 1.8 mi downstream from Barren Fork River, 2.5 mi northeast of McMinnville, and at mile 19.5.

DRAINAGE AREA.--640 mi².

PERIOD OF RECORD.--October 1924 to current year. Prior to April 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 873: 1929, 1932(M), 1934-35, 1936(M), 1937. WSP 1276: 1925-26, 1928(M), 1933, 1936, 1940. WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 825.78 ft, Sandy Hook datum. Prior to Oct. 16, 1926, nonrecording gage on upstream side of bridge at same datum.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1854 is believed to have been about equal to that of Mar. 23, 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	0730	*47,300	*32.56	Apr 1	0230	21,400	20.78
Mar 18	0130	34,300	27.22				

Minimum discharge, 91 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	177	1660	674	1780	618	16600	608	427	156	137	139
2	178	173	1330	622	2100	590	7100	818	398	153	128	130
3	166	169	989	585	1730	585	3900	2890	362	162	123	124
4	151	166	764	553	1530	597	2770	6880	337	153	121	120
5	151	163	622	519	1360	594	2170	6710	358	148	118	115
6	184	159	538	532	1250	571	1800	3490	404	144	114	110
7	175	157	495	543	1590	549	1560	2260	395	139	108	106
8	165	152	539	536	2070	529	1370	1680	434	139	105	104
9	158	149	959	519	1890	519	1250	1330	396	137	102	102
10	151	147	1100	586	1680	528	1120	1160	328	148	101	100
11	144	145	1130	674	1530	563	1010	1340	287	259	102	100
12	142	142	1180	684	1370	582	930	1350	256	178	102	99
13	153	141	1210	666	1240	918	868	2270	247	187	100	94
14	826	138	5580	633	1100	1430	821	3320	242	316	102	94
15	993	136	6220	601	970	1360	773	1650	228	385	114	97
16	781	135	3240	564	897	1420	718	1230	214	270	117	107
17	574	133	2420	535	833	17500	664	993	207	211	145	113
18	454	131	4000	527	762	32800	616	1140	197	186	145	117
19	371	131	3100	1960	703	21100	581	1100	189	167	152	196
20	315	135	2200	5760	e725	8080	551	886	178	156	143	135
21	279	130	1660	3900	e950	4340	522	743	170	145	127	527
22	250	128	1350	2590	895	3110	501	654	166	162	133	312
23	230	131	1370	16400	809	2420	473	584	162	236	129	254
24	214	279	2080	41500	756	2010	475	529	159	381	139	181
25	243	3170	1650	30200	714	1710	462	481	159	215	622	166
26	220	2690	1370	12100	693	1870	441	441	166	184	504	398
27	223	1490	1180	5070	675	2230	455	457	181	162	220	1500
28	218	1020	1040	3370	652	1610	459	647	183	149	172	1420
29	200	760	922	2620	---	1410	448	633	180	139	161	865
30	188	999	821	2130	---	10700	418	537	164	138	174	529
31	181	---	734	1800	---	19600	---	485	---	140	150	---
TOTAL	8870	13776	53453	139953	33254	142443	51826	49296	7774	5845	4910	8454
MEAN	286.1	459.2	1724	4515	1188	4595	1728	1590	259.1	188.5	158.4	281.8
MAX	993	3170	6220	41500	2100	32800	16600	6880	434	385	622	1500
MIN	142	128	495	519	652	519	418	441	159	137	100	94
CFSM	0.45	0.72	2.69	7.05	1.86	7.18	2.70	2.48	0.40	0.29	0.25	0.44
IN.	0.52	0.80	3.11	8.13	1.93	8.28	3.01	2.87	0.45	0.34	0.29	0.49

e Estimated

03421000 COLLINS RIVER NEAR MCMINNVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	317.8	768.2	1592	2149	2377	2535	1793	1075	632.1	431.0	320.1	290.7
MAX	2345	4286	6783	6262	6564	6279	4412	3825	4216	2091	1439	1204
(WY)	1976	1958	1991	1974	1939	1929	1994	1984	1928	1989	1942	1992
MIN	63.5	69.0	107	126	391	619	462	225	85.9	115	76.2	62.9
(WY)	1932	1932	1940	1940	1941	1988	1986	1941	1988	1944	1925	1925

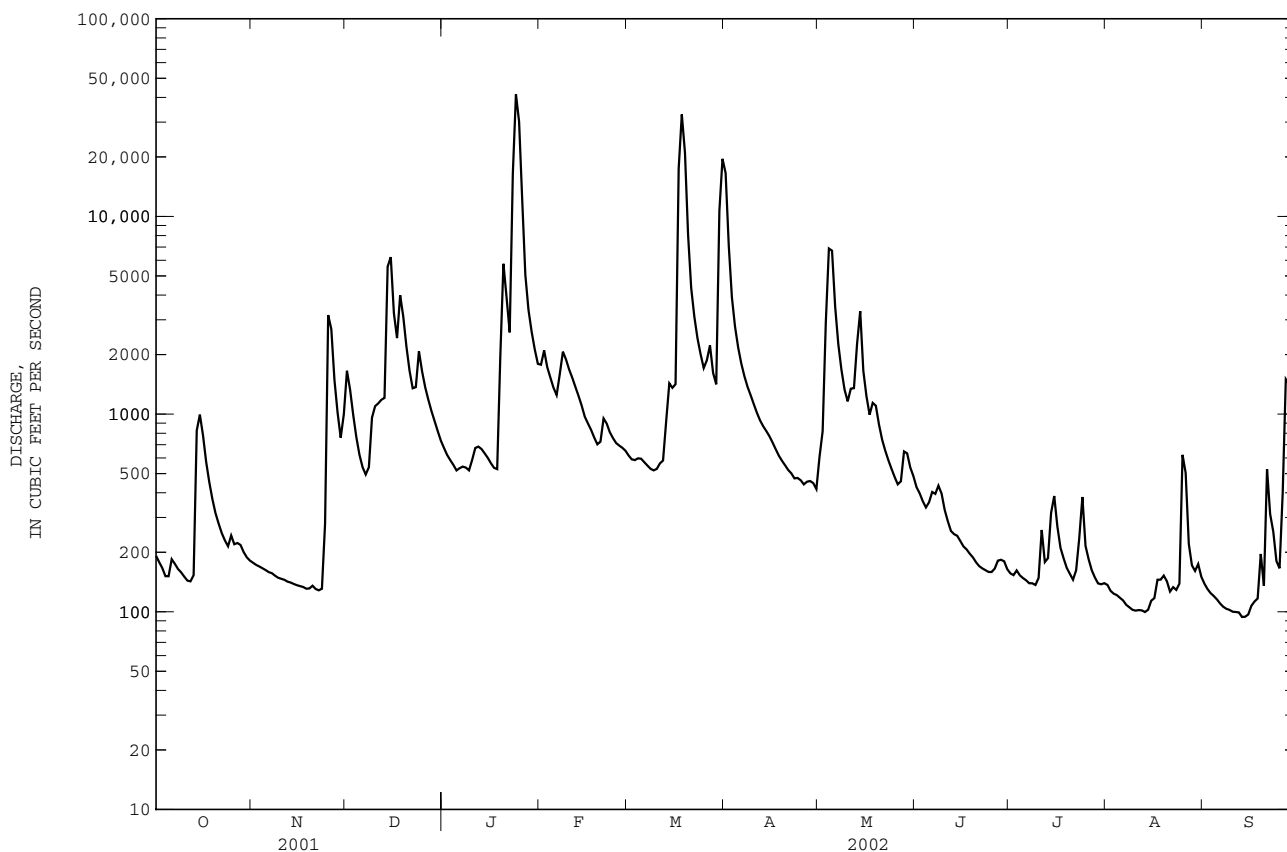
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1925 - 2002

ANNUAL TOTAL	392695	519854	
ANNUAL MEAN	1076	1424	
HIGHEST ANNUAL MEAN			1185
LOWEST ANNUAL MEAN			2193
HIGHEST DAILY MEAN	21000	Feb 17	41500
LOWEST DAILY MEAN	124	Jul 24	94
ANNUAL SEVEN-DAY MINIMUM	131	Nov 17	98
MAXIMUM PEAK FLOW			47300
MAXIMUM PEAK STAGE			32.56
INSTANTANEOUS LOW FLOW			91
ANNUAL RUNOFF (CFSM)	1.68		2.23
ANNUAL RUNOFF (INCHES)	22.83		30.22
10 PERCENT EXCEEDS	2680		2330
50 PERCENT EXCEEDS	434		519
90 PERCENT EXCEEDS	156		131



CUMBERLAND RIVER BASIN

03424730 SMITH FORK AT TEMPERANCE HALL, TN

LOCATION.--Lat 36°05'14", long 85°54'29", Dekalb County, Hydrologic Unit 05130108, on left bank 150 ft downstream from James Slager Memorial bridge on State Highway 264, 0.3 mi northwest of Temperance Hall, and at mile 8.8.

DRAINAGE AREA.--214 mi².

PERIOD OF RECORD.--August 1991 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 499.00 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1930	*17,000	*24.06	Mar 18	0700	9,340	16.92
Jan 24	1500	12,200	20.01	Mar 31	1700	10,300	18.10
Mar 17	1300	13,300	20.97	May 1	0830	7,940	15.18

Minimum discharge, 11 ft³/s, Sept. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	35	340	87	405	151	2610	3150	67	28	37	22
2	22	33	182	80	473	150	1070	1070	62	26	36	20
3	20	32	119	75	379	156	620	984	61	59	30	19
4	20	31	88	71	335	150	428	1080	58	51	26	17
5	19	29	71	67	283	139	339	823	60	45	22	15
6	32	28	60	71	268	136	285	503	73	36	21	16
7	79	26	58	81	481	133	250	358	81	29	20	16
8	51	24	1100	83	642	131	226	273	64	26	19	16
9	39	25	1130	78	514	130	208	222	54	25	18	14
10	33	25	412	76	426	135	185	192	49	25	17	12
11	28	25	606	87	369	127	168	176	47	37	16	12
12	27	25	382	98	320	133	158	153	44	86	18	12
13	28	25	413	103	285	212	149	1280	41	141	16	12
14	697	25	1260	98	249	252	141	1140	40	124	15	13
15	404	24	652	91	226	225	133	480	40	84	15	13
16	166	23	354	84	212	240	125	307	39	54	17	15
17	99	23	261	78	195	7000	118	241	38	42	26	16
18	71	24	277	80	177	6830	112	479	36	37	27	21
19	54	24	243	1170	164	2100	105	279	34	43	25	26
20	46	25	197	1100	178	1640	99	205	33	42	35	29
21	40	26	158	507	238	1220	95	170	31	36	28	105
22	35	26	134	322	208	704	94	144	30	31	25	148
23	32	25	522	8370	188	513	92	125	29	29	27	96
24	30	28	631	10300	177	410	103	109	28	30	19	47
25	195	60	344	4760	165	335	348	96	29	35	17	37
26	147	80	247	1390	168	782	201	104	29	32	25	248
27	81	55	194	769	172	702	148	159	31	28	39	1350
28	58	77	161	544	159	475	127	107	32	27	32	386
29	48	137	136	427	---	383	287	87	31	25	26	165
30	42	1020	114	350	---	544	199	78	30	27	25	99
31	39	---	97	297	---	4930	---	72	---	30	24	---
TOTAL	2706	2065	10943	31794	8056	31168	9223	14646	1321	1370	743	3017
MEAN	87.29	68.83	353.0	1026	287.7	1005	307.4	472.5	44.03	44.19	23.97	100.6
MAX	697	1020	1260	10300	642	7000	2610	3150	81	141	39	1350
MIN	19	23	58	67	159	127	92	72	28	25	15	12
CFSM	0.41	0.32	1.65	4.79	1.34	4.70	1.44	2.21	0.21	0.21	0.11	0.47
IN.	0.47	0.36	1.90	5.53	1.40	5.42	1.60	2.55	0.23	0.24	0.13	0.52

03424730 SMITH FORK AT TEMPERANCE HALL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	81.08	173.2	422.2	613.6	500.5	738.0	439.4	269.2	213.7	119.0	68.57	77.63
MAX	270	559	811	1081	1190	1516	1095	506	768	460	225	389
(WY)	1996	1997	1992	1999	1994	1994	1994	1995	1998	1992	1996	1992
MIN	15.1	29.5	72.7	82.9	212	401	158	61.4	44.0	25.6	22.5	12.5
(WY)	2001	2000	2000	2000	1993	2001	1992	1992	2002	2000	1999	1999

SUMMARY STATISTICS

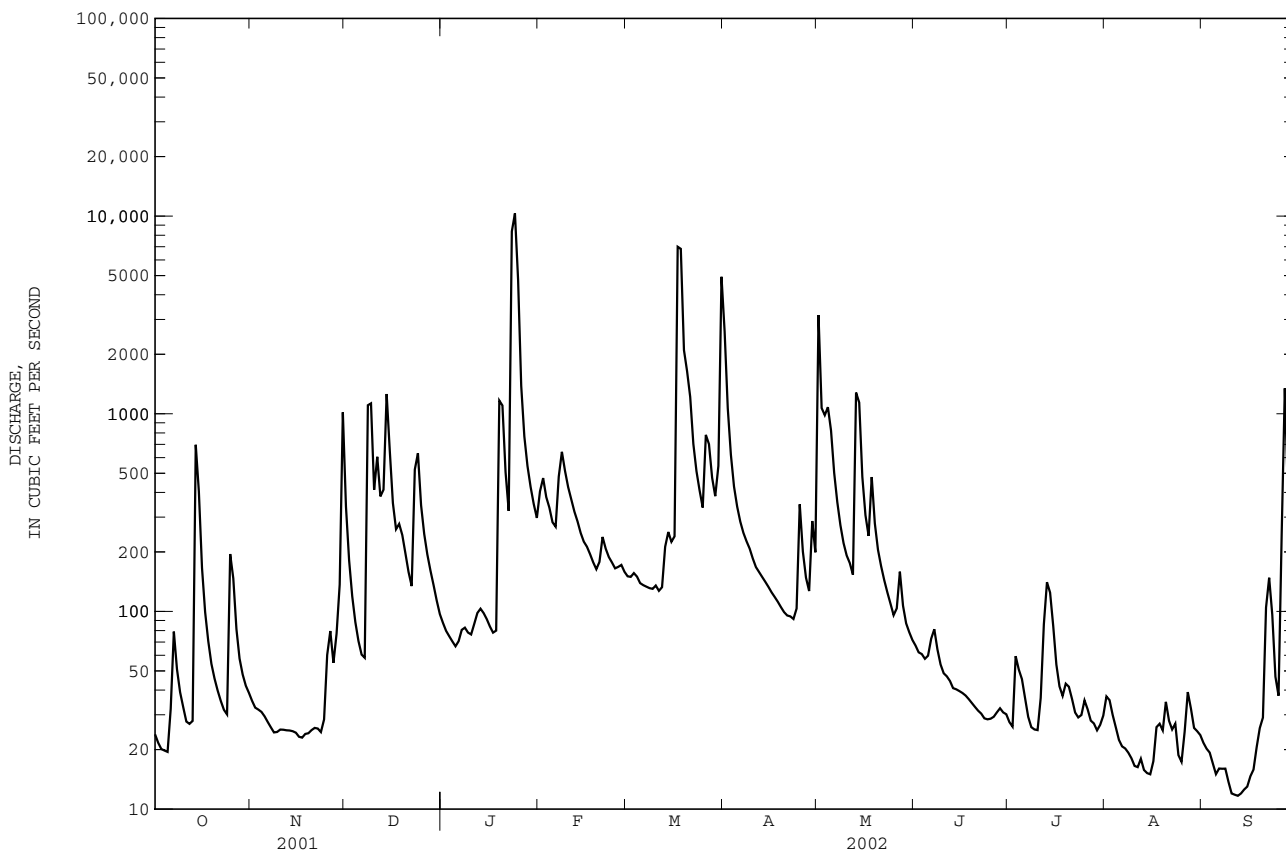
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1991 - 2002

ANNUAL TOTAL	77565	117052	
ANNUAL MEAN	212.5	320.7	
HIGHEST ANNUAL MEAN			305.6
LOWEST ANNUAL MEAN			488
HIGHEST DAILY MEAN	5350	Feb 16	11800
LOWEST DAILY MEAN	15	Aug 25	31.0
ANNUAL SEVEN-DAY MINIMUM	16	Aug 24	9.7
MAXIMUM PEAK FLOW			10
MAXIMUM PEAK STAGE			26.12
INSTANTANEOUS LOW FLOW			9.0
ANNUAL RUNOFF (CFSM)	0.99	1.50	1.43
ANNUAL RUNOFF (INCHES)	13.48	20.35	19.40
10 PERCENT EXCEEDS	412	569	631
50 PERCENT EXCEEDS	66	87	105
90 PERCENT EXCEEDS	23	23	22

a Also occurred Sept. 12.



CUMBERLAND RIVER BASIN

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN

LOCATION.--Lat 36°17'47", long 86°39'28", Davidson County, Hydrologic Unit 05130202, at right bank in powerhouse, at Old Hickory Dam, 2.0 mi west of Hendersonville, and at mile 216.2.

DRAINAGE AREA.--11,673 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to September 1942, October 1947 to current year. Prior to July 1953, published as "at dam 3, near Old Hickory". July 1953 to September 1986 published as "below Old Hickory".

GAGE.--Datum of gage is NGVD of 1929.

REMARKS.--Flow regulated by six lakes or reservoirs (see p. 152).

COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173,000 ft³/s, Jan. 29, 1937; maximum gage height, 438.80 ft, Mar. 14, 1975; minimum daily discharge, 86 ft³/s, Aug. 15, 1936; minimum gage height since filling of Cheatham Lake on Oct. 1, 1956, 383.49 ft, Sept. 10, 1962, at present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1793, 437.4 ft Dec. 31, 1926, at present datum, from profile by U.S. Army Corps of Engineers, discharge, 200,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 87,900 ft³/s, Mar. 18; minimum daily, 4,270 ft³/s, Nov. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7020	6330	19100	9190	33800	23800	70500	24500	14500	8650	12200	8160
2	6780	4270	12400	9620	28900	22200	70400	27300	10800	8380	9890	7610
3	7890	5690	10200	10400	31600	12200	57800	28900	8890	9810	8680	7020
4	9040	4980	9360	9100	28400	6240	47200	24000	6660	9490	7600	8450
5	10500	5520	7980	7000	28300	10300	42200	30700	6960	12800	7860	9960
6	8500	5520	5800	6790	28000	11300	46000	27400	8030	9060	9050	9410
7	7790	5510	5750	6850	30600	9000	42800	23500	10700	6790	8800	7370
8	7640	5510	5780	7600	31100	13400	37500	32100	5760	7590	10400	7900
9	7920	5530	10100	8360	28800	12200	35600	29500	5750	6690	10500	7930
10	6990	5520	18600	8920	19400	7370	37400	29000	9870	9780	9650	7330
11	7880	4770	12200	10000	23400	6780	37200	31200	8440	14700	7750	8390
12	8140	5570	12300	7820	25900	6780	36900	30800	8420	11400	7880	8710
13	6970	5270	15000	6760	19900	8720	35400	31500	8400	10400	7880	8740
14	7820	5260	27400	6480	19600	10900	29300	43700	12600	13700	8970	9080
15	18000	5710	21800	5480	22400	11700	24100	34900	8450	7660	10100	7430
16	9160	7320	12300	8000	22100	12200	16700	34500	8640	10100	11800	5720
17	6050	5010	12400	9510	19600	35300	15900	34600	8630	11000	14800	7590
18	6360	4980	7960	8580	15600	87900	14000	42000	8660	10900	9730	8940
19	8050	4820	9320	10600	14600	84300	15800	41800	7250	10400	7610	9850
20	5750	4800	6850	15700	17800	70800	15900	32600	8400	9490	7900	9640
21	4990	5240	6580	10300	20400	66900	14200	28100	8360	7310	9190	8450
22	5270	5380	5780	12300	18300	66800	13100	27800	7560	8330	9120	9010
23	6820	5700	6030	24200	19300	64200	7350	26600	6500	8670	9910	7870
24	6800	5220	6020	73900	19400	56600	6870	26500	7880	10500	8780	7770
25	6610	7400	10800	82100	14100	53000	25200	23500	9080	11900	9330	8070
26	6260	9430	12700	72400	12600	49700	20400	17500	9780	12800	8700	9170
27	6050	7410	10500	50200	18200	56400	16600	17100	9280	11900	9320	26100
28	5460	8410	11000	41000	20800	52500	9080	13500	9320	6580	8700	19600
29	4280	14200	7350	30500	---	46300	14700	15400	6830	9010	9800	17000
30	5840	17900	5850	30700	---	46000	13800	17000	5740	8130	12200	5900
31	6080	---	7620	35000	---	50900	---	17300	---	8900	7860	---
TOTAL	228710	194180	332830	635360	632900	1072690	869900	864800	256140	302820	291960	284170
MEAN	7378	6473	10740	20500	22600	34600	29000	27900	8538	9768	9418	9472
MAX	18000	17900	27400	82100	33800	87900	70500	43700	14500	14700	14800	26100
MIN	4280	4270	5750	5480	12600	6240	6870	13500	5740	6580	7600	5720

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

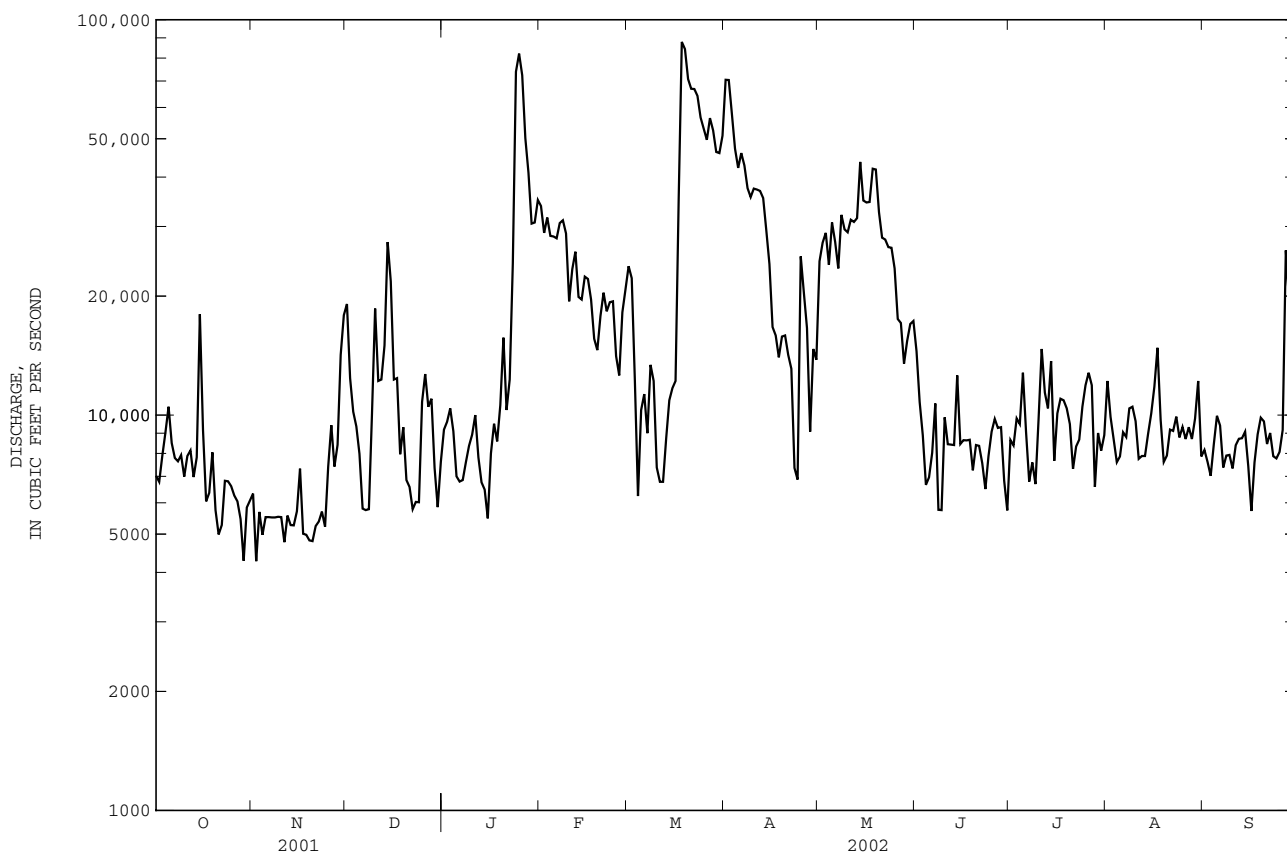
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	9095	12070	21420	27890	27170	31150	28360	20390	15580	12650	11990	9965
MAX	29430	29530	43590	79580	61700	73880	74400	65100	40510	28410	21400	27600
(WY)	1990	1980	1979	1974	1957	1975	1994	1984	1997	1967	1982	1979
MIN	2660	3449	3974	4656	8524	6778	6963	5465	6048	4211	4991	2723
(WY)	1969	1981	1981	1981	1981	1981	1986	1988	1988	1974	1975	1968

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR *WATER YEARS 1957 - 2002

ANNUAL TOTAL	3885230		5966460									
ANNUAL MEAN	10640		16350							18940		
HIGHEST ANNUAL MEAN										28560		1974
LOWEST ANNUAL MEAN										8780		1988
HIGHEST DAILY MEAN	77700	Feb 17	87900	Mar 18					146000	Mar 14	1975	
LOWEST DAILY MEAN	2840	May 20	4270	Nov 2					200	Nov 3	1957	
ANNUAL SEVEN-DAY MINIMUM	4740	May 16	5130	Nov 17					1070	Oct 28	1969	
10 PERCENT EXCEEDS	17800		35100						40600			
50 PERCENT EXCEEDS	9040		9730						13500			
90 PERCENT EXCEEDS	5170		5820						5300			

* Regulated period only.



03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1979 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1979 to current year.

pH: April 1979 to current year.

WATER TEMPERATURE: April 1979 to current year.

DISSOLVED OXYGEN: April 1979 to current year.

TURBIDITY: October 1992 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1979.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Periods of missing record were due to instrument malfunctions. Supersaturation of dissolved oxygen may occur due to local hydraulic conditions. All parameters affected by release from Old Hickory Dam. Records for water temperature are excellent, specific conductance are good, pH and dissolved oxygen are poor and turbidity are fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 269 microsiemens, Jan. 3, 4, 2002; minimum, 137 microsiemens, March 14, 1994.

pH: Maximum, 9.8 units, March 26, 1988; minimum, 6.4 units, July 28, 1991, July 24, 25, 26, 1993.

WATER TEMPERATURE: Maximum, 27.6°C, August 8, 1988; minimum, 2.1°C, Dec. 24, 1989.

DISSOLVED OXYGEN: Maximum, 17.2 mg/L, February 8, 2001; minimum, 2.9 mg/L, Sept. 5, 1988, July 8, 1993.

TURBIDITY: Maximum recorded, 170 NTU, March 5, 1997, minimum, 1 NTU, many days during the 1996, Sept. 20, 1997, and many days during the 2000, 2001, and 2002 water years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 269 microsiemens, Jan. 3, 4; minimum, 182 microsiemens, Sept. 30.

pH: Maximum, 8.8 units, Jan. 18, 20-23; minimum, 6.8 units, July 29, 30.

WATER TEMPERATURE: Maximum, 27.4°C, Aug. 8; minimum, 5.6°C, Jan. 9.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Jan. 25; minimum, 3.4 mg/L, July 3.

TURBIDITY: Maximum, 120 NTU, Mar. 19; minimum, 1 NTU, several days.

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	200	198	199	212	211	211	219	217	218	267	266	267
2	202	199	201	216	212	214	219	217	218	268	267	268
3	202	200	202	219	215	218	218	218	218	269	268	268
4	203	200	202	220	218	218	218	217	218	269	268	268
5	203	201	202	220	219	220	219	218	218	268	267	268
6	204	201	202	220	218	219	222	219	221	267	266	266
7	201	200	201	220	218	219	224	222	223	266	261	264
8	205	200	201	220	218	219	225	224	224	262	261	261
9	204	200	201	220	219	219	226	225	225	261	255	258
10	202	201	202	219	218	219	229	226	226	256	246	251
11	203	200	202	222	217	218	233	228	230	248	242	244
12	203	201	202	221	217	218	236	233	235	243	235	239
13	203	202	202	219	217	218	238	234	237	237	231	234
14	203	201	202	217	215	216	239	235	238	231	226	230
15	203	203	203	217	214	216	235	231	233	226	224	225
16	203	201	202	214	213	214	234	231	232	225	223	224
17	203	202	203	217	213	215	241	234	238	223	216	220
18	206	203	204	219	214	215	242	240	241	217	215	216
19	207	204	205	220	215	217	243	242	243	215	212	213
20	207	205	206	221	217	218	245	243	244	212	209	210
21	210	206	208	221	218	218	245	245	245	209	208	209
22	210	206	208	220	216	218	247	245	245	209	206	208
23	209	205	207	218	216	217	249	246	247	207	205	206
24	211	207	209	219	217	218	250	248	249	246	207	224
25	212	207	208	220	218	218	253	250	252	252	215	239
26	210	207	208	220	218	219	255	252	254	215	203	209
27	213	207	208	219	217	217	258	254	255	213	211	213
28	211	207	208	220	218	219	263	258	260	211	209	209
29	211	207	208	220	215	217	266	263	265	209	202	205
30	209	208	209	218	216	217	267	265	266	202	197	200
31	211	209	210	---	---	---	267	266	267	197	193	194
MONTH	213	198	204	222	211	217	267	217	238	269	193	233

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

SPECIFIC CONDUCTANCE FROM THE DCP, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	193	191	192	222	221	222	218	213	214	207	198	203
2	193	192	192	222	221	221	216	209	212	214	207	211
3	195	192	193	227	222	224	219	214	216	218	214	217
4	195	194	195	226	225	225	219	211	216	222	218	220
5	197	195	196	226	223	224	213	207	210	223	217	221
6	203	197	200	223	219	220	208	203	205	220	217	219
7	208	202	204	219	216	217	209	204	207	222	219	221
8	211	208	209	217	215	216	209	207	208	220	217	219
9	212	210	211	217	216	216	210	206	207	220	218	219
10	212	210	211	219	216	218	207	203	205	221	219	220
11	215	212	214	219	218	219	204	200	202	220	214	217
12	219	214	217	219	218	219	201	197	199	217	214	215
13	221	218	219	222	219	220	200	197	199	214	210	212
14	222	220	221	224	222	223	199	196	197	210	203	207
15	227	221	224	225	223	224	198	196	197	208	203	206
16	224	222	224	227	225	226	198	196	197	206	204	205
17	224	221	222	228	218	224	198	196	197	212	205	210
18	222	221	222	229	219	224	199	196	197	213	207	210
19	224	221	222	224	209	214	202	198	200	208	201	205
20	225	224	224	233	215	227	203	200	202	205	201	203
21	226	225	225	233	227	231	203	201	202	205	202	204
22	227	226	227	227	189	203	203	200	202	209	204	206
23	226	225	226	192	188	190	202	199	201	212	208	210
24	225	224	224	203	192	199	202	199	201	212	207	209
25	225	222	224	203	201	202	202	197	200	208	206	207
26	222	219	220	205	200	202	199	196	198	206	202	204
27	221	219	220	209	205	207	199	197	198	203	197	200
28	221	219	219	211	206	209	200	197	199	199	194	197
29	---	---	---	214	211	212	200	198	199	196	193	194
30	---	---	---	217	214	215	201	198	200	197	195	196
31	---	---	---	217	213	216	---	---	---	201	196	198
MONTH	227	191	214	233	188	216	219	196	203	223	193	209

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	204	199	201	201	198	199	194	188	191	198	193	194
2	207	204	205	203	199	201	192	189	191	198	193	195
3	209	206	207	203	197	200	192	188	190	198	194	196
4	209	206	208	200	197	198	193	189	191	197	191	194
5	209	207	208	201	192	198	193	190	191	199	193	196
6	209	201	207	201	199	200	193	190	191	196	191	194
7	208	205	207	202	198	200	193	190	191	197	191	193
8	208	205	206	202	199	201	192	188	190	194	190	192
9	209	206	208	204	198	200	193	190	191	196	191	193
10	209	206	208	205	200	201	195	191	192	195	192	193
11	209	206	207	203	200	202	198	193	194	194	189	192
12	210	206	208	203	198	201	197	194	195	193	189	192
13	209	206	208	199	196	198	196	193	195	195	191	193
14	209	207	208	199	196	197	197	193	195	198	191	193
15	208	205	207	199	196	198	195	192	194	195	192	193
16	208	204	205	202	195	197	194	191	193	194	192	193
17	205	201	203	211	197	202	197	192	194	194	192	193
18	202	200	201	207	197	200	197	193	195	194	192	193
19	202	201	201	207	195	199	195	191	194	195	192	194
20	202	201	202	202	190	196	195	193	194	195	192	194
21	202	198	200	197	192	195	195	191	193	195	192	193
22	198	196	197	199	191	195	197	192	194	194	190	192
23	199	196	198	194	190	192	196	192	194	192	190	191
24	198	197	198	195	194	194	196	191	193	195	190	192
25	199	195	196	197	191	194	194	189	192	192	190	191
26	198	195	197	193	188	191	199	191	194	192	187	190
27	199	196	197	191	189	190	196	190	193	188	185	186
28	200	198	199	191	188	190	197	194	195	188	185	186
29	200	199	200	193	189	191	197	195	196	186	184	185
30	199	199	199	193	190	191	197	194	195	186	182	184
31	---	---	---	196	188	193	196	193	194	---	---	---
MONTH	210	195	203	211	188	197	199	188	193	199	182	192

CUMBERLAND RIVER BASIN

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

PH, WH, FIELD FROM THE DCP, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.0	7.7	8.3	8.1	7.8	7.7	8.0	7.9	8.4	8.3	8.3	8.1
2	8.2	7.5	8.2	8.1	7.8	7.7	7.9	7.2	8.4	8.3	8.1	8.1
3	8.6	7.9	8.1	7.9	8.1	7.7	8.0	7.5	8.3	8.3	8.1	8.0
4	8.5	7.7	8.0	7.8	8.3	8.1	8.1	8.0	8.3	8.3	8.2	8.0
5	8.4	7.7	8.0	7.8	8.4	8.3	8.1	8.0	8.4	8.3	8.2	8.1
6	7.9	7.3	8.2	7.8	8.3	8.3	8.2	8.1	8.4	8.4	8.3	8.2
7	8.3	7.9	8.0	7.9	8.3	8.3	8.2	8.1	8.4	8.3	8.3	8.2
8	8.2	7.7	8.1	7.8	8.3	8.2	8.3	8.2	8.3	8.2	8.3	8.3
9	8.2	7.7	8.0	7.9	8.2	8.1	8.3	8.3	8.3	8.2	8.3	8.1
10	8.1	7.6	8.1	7.9	8.2	8.2	8.3	8.2	8.3	8.2	8.2	8.1
11	8.0	7.5	8.1	7.7	8.2	8.1	8.5	8.2	8.3	8.3	8.3	8.2
12	7.6	7.3	8.0	7.7	8.2	8.1	8.5	8.3	8.3	8.3	8.3	8.2
13	7.3	7.2	8.0	7.8	8.2	8.0	8.5	8.4	8.3	8.3	8.2	8.2
14	7.5	7.2	8.0	7.9	8.1	8.0	8.6	8.4	8.3	8.3	8.2	8.2
15	7.5	7.3	8.0	7.8	8.1	8.1	8.6	8.4	8.3	8.2	8.2	8.2
16	7.4	7.1	7.9	7.8	8.1	8.1	8.7	8.4	8.2	8.2	8.2	8.0
17	7.3	7.1	7.9	7.6	8.1	8.0	8.7	8.6	8.2	8.2	8.0	7.9
18	7.7	7.2	8.1	7.7	8.0	8.0	8.8	8.6	8.2	8.2	8.0	7.7
19	7.8	7.6	8.2	7.7	8.1	8.0	8.7	8.6	8.2	8.2	7.7	7.6
20	7.7	7.4	8.2	7.8	8.1	8.0	8.8	8.5	8.2	8.2	7.6	7.6
21	7.8	7.3	8.2	7.8	8.0	8.0	8.8	8.6	8.2	8.2	7.6	7.5
22	7.9	7.4	8.3	8.0	8.0	8.0	8.8	8.7	8.2	8.1	7.6	7.5
23	8.1	7.8	8.3	8.1	8.0	8.0	8.8	8.4	8.2	8.1	7.5	7.4
24	7.9	7.3	8.1	7.9	8.1	8.0	8.4	7.8	8.2	8.1	7.5	7.4
25	7.5	7.2	8.0	7.9	8.0	7.9	8.1	7.8	8.2	8.1	7.4	7.4
26	7.5	7.2	7.9	7.8	8.0	8.0	7.9	7.4	8.2	8.1	7.4	7.3
27	7.4	7.1	7.9	7.8	8.1	8.0	7.7	7.5	8.2	8.1	7.4	7.4
28	7.6	7.3	7.8	7.7	8.0	7.9	8.0	7.7	8.2	8.2	7.4	7.4
29	8.0	7.0	7.8	7.7	7.9	7.9	8.1	7.8	---	---	7.5	7.4
30	8.2	7.8	7.8	7.7	8.0	7.9	8.3	8.1	---	---	7.5	7.4
31	8.2	8.0	---	---	8.0	7.9	8.3	8.3	---	---	7.5	7.3
MONTH	8.6	7.0	8.3	7.6	8.4	7.7	8.8	7.2	8.4	8.1	8.3	7.3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	7.3	7.3	8.2	7.8	7.7	7.3	7.5	7.3	7.1	7.0	8.2	7.9
2	7.3	7.3	7.9	7.8	7.5	7.3	7.5	7.3	7.1	7.1	8.1	7.9
3	7.3	7.3	7.9	7.7	7.6	7.2	7.5	7.2	7.2	7.1	8.0	7.9
4	7.6	7.3	7.8	7.7	7.5	7.2	7.5	7.4	7.3	7.1	7.9	7.8
5	7.6	7.6	7.7	7.7	7.6	7.1	7.5	7.4	7.4	7.2	8.1	7.8
6	7.6	7.5	7.7	7.6	7.4	7.2	7.6	7.4	8.1	7.3	8.2	7.9
7	7.6	7.6	7.7	7.6	7.5	7.2	7.7	7.5	8.2	7.8	8.1	7.9
8	7.7	7.6	7.7	7.7	7.9	7.4	7.7	7.6	8.2	8.0	8.0	7.9
9	7.7	7.6	7.7	7.7	7.8	7.3	7.8	7.4	8.0	7.9	8.0	7.8
10	7.8	7.6	7.8	7.7	7.6	7.3	7.7	7.5	8.0	7.8	8.0	7.9
11	7.7	7.6	7.7	7.6	7.4	7.2	7.8	7.5	7.9	7.8	8.1	7.9
12	7.7	7.6	7.7	7.6	7.4	7.2	7.8	7.4	8.2	7.7	8.3	8.1
13	7.7	7.6	7.6	7.5	7.4	7.1	7.8	7.5	8.3	7.8	8.4	8.1
14	7.7	7.6	7.7	7.5	7.3	7.1	7.8	7.4	8.4	7.8	8.5	8.1
15	8.0	7.6	7.6	7.4	7.3	7.2	7.7	7.4	8.1	7.9	8.2	7.9
16	8.1	7.8	7.5	7.3	7.5	7.2	7.7	7.5	8.2	8.0	8.1	7.8
17	8.0	7.7	7.2	7.1	7.6	7.2	7.6	7.3	8.3	7.9	8.2	7.9
18	8.1	7.6	7.6	7.4	7.4	7.2	7.5	7.3	8.0	7.8	8.5	7.9
19	7.9	7.7	7.5	7.4	7.5	7.2	7.5	7.2	8.2	7.9	8.4	7.9
20	7.8	7.6	7.5	7.4	7.4	7.1	7.5	7.2	8.2	8.1	8.5	8.0
21	7.8	7.6	7.5	7.3	7.5	7.2	7.6	7.2	8.5	8.1	8.4	7.9
22	7.8	7.3	7.7	7.4	7.4	7.2	7.6	7.4	8.4	8.3	8.2	8.0
23	8.2	7.6	7.8	7.6	7.4	7.3	7.6	---	8.3	8.2	8.5	8.0
24	8.1	7.8	7.9	7.7	7.3	7.3	8.0	---	8.3	8.2	8.6	8.1
25	8.1	7.5	8.0	7.8	7.4	7.2	8.0	7.6	8.2	8.1	8.4	8.2
26	8.0	7.7	8.0	7.6	7.4	7.3	7.9	7.6	8.2	8.1	8.3	8.1
27	7.8	7.6	7.9	7.6	7.6	7.2	7.8	7.6	8.3	8.2	8.2	8.0
28	7.6	7.4	7.9	7.6	7.4	7.2	7.7	7.5	8.4	7.9	8.2	8.0
29	7.8	7.4	8.1	7.6	7.5	7.3	7.7	6.8	8.0	7.9	8.2	8.0
30	8.2	7.6	7.8	7.5	7.4	7.3	7.0	6.8	8.2	7.9	8.3	8.0
31	---	---	7.9	7.2	---	---	7.0	7.0	8.1	8.0	---	---
MONTH	8.2	7.3	8.2	7.1	7.9	7.1	8.0	6.8	8.5	7.0	8.6	7.8

CUMBERLAND RIVER BASIN

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03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.6	19.3	19.4	15.8	15.5	15.6	13.8	13.5	13.7	7.8	7.3	7.6
2	19.6	19.1	19.4	16.0	15.7	15.8	13.5	13.3	13.4	7.3	6.9	7.0
3	19.8	19.2	19.5	16.0	15.7	15.8	13.4	13.2	13.3	6.9	6.4	6.7
4	19.9	19.2	19.5	16.0	15.6	15.9	13.4	13.2	13.3	6.4	6.1	6.2
5	19.9	19.1	19.5	15.9	15.7	15.8	13.4	13.3	13.3	6.2	5.9	6.1
6	19.2	18.4	18.7	15.9	15.6	15.8	13.4	13.2	13.4	6.1	6.1	6.1
7	18.9	18.5	18.7	15.8	15.6	15.7	13.5	13.4	13.4	6.1	5.9	6.0
8	19.0	18.4	18.7	15.7	15.4	15.5	13.6	13.4	13.5	5.9	5.7	5.8
9	18.8	18.6	18.7	15.5	15.3	15.4	13.4	13.0	13.2	6.0	5.6	5.8
10	18.7	18.3	18.5	15.4	15.2	15.3	13.0	12.7	12.8	6.5	6.0	6.3
11	18.6	18.5	18.6	15.4	15.1	15.3	12.8	12.6	12.7	6.6	6.5	6.5
12	18.6	18.4	18.5	15.2	14.9	15.1	12.7	12.6	12.6	6.9	6.6	6.7
13	18.8	18.6	18.6	15.1	14.9	15.0	12.8	12.7	12.8	7.0	6.7	6.9
14	18.9	18.7	18.8	15.1	14.9	15.0	12.8	12.7	12.7	7.3	7.0	7.1
15	18.9	18.4	18.7	14.9	14.7	14.8	12.9	12.7	12.8	7.3	7.2	7.3
16	18.7	17.9	18.3	14.8	14.6	14.8	13.0	12.9	13.0	7.4	7.1	7.3
17	17.9	17.2	17.6	14.9	14.6	14.8	13.1	12.9	13.0	7.6	7.4	7.5
18	17.4	17.1	17.2	15.0	14.6	14.8	13.1	12.8	12.9	7.5	7.3	7.4
19	17.3	17.0	17.1	15.0	14.8	14.9	12.8	12.4	12.6	7.3	7.2	7.3
20	17.2	17.0	17.1	14.8	14.1	14.4	12.4	12.0	12.2	7.3	7.1	7.3
21	17.3	16.9	17.1	14.1	13.9	14.0	12.0	11.6	11.8	7.6	7.3	7.4
22	17.5	17.0	17.2	13.9	13.7	13.8	11.6	11.4	11.5	7.8	7.4	7.6
23	18.1	17.4	17.8	13.8	13.6	13.7	11.6	11.3	11.5	8.3	7.8	8.0
24	18.1	17.6	17.9	14.1	13.8	14.0	11.3	10.8	11.0	8.5	7.4	8.1
25	17.9	17.3	17.6	14.2	14.0	14.1	10.8	10.2	10.6	9.0	7.3	8.0
26	17.3	16.6	16.9	14.1	13.9	13.9	10.2	9.7	9.9	9.6	9.0	9.4
27	16.6	16.0	16.3	14.3	14.0	14.2	9.7	9.1	9.3	9.7	9.3	9.5
28	16.0	15.7	15.8	14.2	14.0	14.1	9.3	9.1	9.2	9.9	9.6	9.7
29	15.9	15.5	15.7	14.2	14.0	14.1	9.3	8.7	9.1	10.3	9.9	10.1
30	15.7	15.4	15.6	14.2	13.8	14.0	8.7	8.2	8.5	10.7	10.2	10.5
31	15.6	15.4	15.5	---	---	---	8.2	7.8	8.0	11.3	10.7	11.0
MONTH	19.9	15.4	17.9	16.0	13.6	14.8	13.8	7.8	12.0	11.3	5.6	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.4	11.1	11.2	8.4	8.0	8.2	11.2	10.7	11.0	18.4	17.7	18.0
2	11.1	10.7	10.9	8.5	8.2	8.3	11.7	11.0	11.3	18.1	17.7	18.0
3	10.7	10.2	10.5	8.4	8.0	8.2	11.7	11.4	11.6	17.9	17.5	17.7
4	10.2	9.6	10	8.0	7.6	7.7	11.5	11.1	11.3	17.5	17.2	17.3
5	9.6	9.0	9.2	7.8	7.3	7.6	11.6	11.1	11.4	17.7	17.1	17.3
6	9.0	8.6	8.8	8.1	7.7	7.9	11.9	11.3	11.6	17.6	17.1	17.3
7	8.6	8.3	8.4	8.4	8.0	8.2	12.1	11.4	11.7	17.8	17.3	17.6
8	8.6	8.3	8.4	9.1	8.3	8.6	12.1	11.7	11.8	18.1	17.6	17.9
9	8.9	8.4	8.6	9.5	9.0	9.2	12.1	11.9	12.0	18.0	17.6	17.8
10	8.9	8.6	8.8	9.2	8.9	9.1	12.8	11.9	12.2	18.0	17.6	17.8
11	8.9	8.7	8.8	9.6	9.1	9.3	13.0	12.3	12.6	17.7	17.2	17.5
12	8.9	8.7	8.8	9.8	9.6	9.7	13.5	12.8	13.1	17.7	17.2	17.4
13	8.8	8.5	8.7	9.9	9.6	9.7	13.9	13.3	13.6	17.6	17.0	17.3
14	8.8	8.4	8.6	10.6	9.8	10.1	14.2	13.7	14.0	17.0	16.6	16.8
15	8.7	8.6	8.7	10.9	10.5	10.7	15.2	13.9	14.5	17.0	16.5	16.7
16	8.9	8.6	8.8	10.9	10.5	10.7	15.7	14.9	15.2	16.9	16.5	16.6
17	9.0	8.6	8.8	11.3	10.6	10.9	15.7	15.2	15.4	17.0	16.7	16.8
18	9.0	8.6	8.8	11.5	11.3	11.5	16.5	15.4	15.8	16.8	15.9	16.4
19	9.0	8.7	8.9	12.2	11.5	12.0	16.3	15.9	16.1	15.9	15.4	15.6
20	9.5	9.0	9.2	12.1	12.0	12.1	16.5	16.1	16.3	16.0	15.4	15.7
21	9.8	9.1	9.5	12.3	11.7	12.1	17.3	16.3	16.7	16.1	15.6	15.8
22	9.7	9.4	9.6	11.8	11.2	11.3	17.5	16.0	16.7	16.3	15.6	15.9
23	9.7	9.2	9.5	11.4	11.1	11.2	18.3	17.3	17.8	16.5	15.9	16.2
24	9.6	9.2	9.4	11.1	10.7	10.9	18.1	17.7	17.9	16.8	16.2	16.4
25	9.8	9.3	9.5	11.2	10.6	10.8	18.0	17.4	17.8	17.2	16.6	16.9
26	9.9	8.8	9.4	11.0	10.6	10.9	17.7	17.2	17.4	17.5	16.7	17.0
27	9.0	8.3	8.6	10.6	10.3	10.4	17.3	17.0	17.2	17.8	17.2	17.5
28	8.4	8.2	8.3	10.9	10.2	10.5	17.7	17.2	17.4	18.4	17.6	17.9
29	---	---	---	11.4	10.6	11.0	18.0	17.0	17.5	19.2	17.8	18.4
30	---	---	---	11.2	11.1	11.2	18.4	17.7	18.1	19.1	18.2	18.6
31	---	---	---	11.1	10.8	10.9	---	---	---	19.5	18.1	18.8
MONTH	11.4	8.2	9.2	12.3	7.3	10.0	18.4	10.7	14.6	19.5	15.4	17.2

CUMBERLAND RIVER BASIN

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

WATER TEMPERATURE FROM THE DCP, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	18.5	19.0	26.3	25.3	25.8	26.6	24.8	25.5	26.1	25.2	25.5
2	19.5	18.8	19.2	26.8	25.6	26.0	26.1	25.2	25.7	25.7	25.3	25.5
3	20.4	18.7	19.6	26.8	25.6	26.2	26.2	24.9	25.6	25.5	25.1	25.2
4	20.5	19.2	19.9	26.4	25.6	26.0	26.0	25.0	25.4	25.2	24.6	25.0
5	21.3	20.0	20.5	26.6	26.1	26.3	25.8	25.0	25.3	26.1	24.5	25.1
6	21.1	19.6	20.2	26.5	26.0	26.2	26.6	25.0	25.5	26.1	24.9	25.4
7	21.8	20.1	21.1	26.5	26.1	26.3	26.9	25.9	26.5	25.7	24.8	25.2
8	23.1	21.6	22.2	26.4	25.8	26.2	27.4	26.2	26.7	25.4	24.7	25.0
9	23.2	21.4	22.3	26.5	25.5	26.1	26.8	26.0	26.4	25.5	24.8	25.1
10	23.5	21.8	22.6	26.5	25.8	26.0	26.8	26.0	26.3	25.5	24.8	25.1
11	23.0	22.2	22.7	27.2	26.3	26.7	26.5	25.5	26.0	25.4	24.6	24.9
12	23.0	22.4	22.7	26.6	25.9	26.3	26.5	25.5	26.0	25.8	25.2	25.5
13	23.6	21.9	22.8	26.4	25.6	26.0	26.5	25.6	26.1	25.9	25.4	25.5
14	23.5	22.3	23.0	26.5	25.7	26.0	26.5	25.6	26.0	26.0	25.4	25.6
15	23.4	22.8	23.0	26.0	25.7	25.8	26.2	25.6	25.9	25.7	24.8	25.3
16	23.9	23.3	23.6	26.2	25.6	25.9	26.1	25.6	25.9	25.1	24.5	24.8
17	24.6	23.4	23.9	25.9	25.1	25.6	26.2	25.5	25.9	25.1	24.5	24.7
18	24.8	23.5	24.1	25.7	24.7	25.2	25.8	25.2	25.4	25.7	24.5	25.1
19	24.9	23.7	24.4	25.8	24.8	25.3	25.8	25.4	25.6	25.7	24.6	25.2
20	24.6	23.4	24.1	25.6	24.9	25.3	25.8	25.3	25.6	25.7	24.5	25.3
21	24.9	23.7	24.4	26.0	25.1	25.6	26.2	25.6	25.8	25.2	24.3	24.7
22	24.7	23.8	24.2	26.1	25.6	25.9	26.1	25.4	25.7	24.9	24.1	24.5
23	24.7	24.2	24.5	26.2	25.9	26.0	26.0	25.0	25.5	24.4	24.1	24.2
24	24.8	24.2	24.5	26.4	25.9	26.2	25.6	24.8	25.1	24.2	23.8	23.9
25	24.8	23.2	24.2	26.9	25.8	26.3	25.5	24.8	25.1	23.8	23.4	23.6
26	25.1	23.7	24.5	26.5	25.8	26.2	25.5	24.8	25.3	23.4	22.7	23.1
27	25.4	24.1	24.7	26.0	25.3	25.7	26.0	25.3	25.7	22.7	22.2	22.4
28	25.4	24.2	24.9	25.4	24.4	25.1	26.0	25.5	25.8	22.3	22.1	22.2
29	25.6	25.0	25.2	25.6	24.4	25.0	25.9	25.5	25.7	22.3	22.0	22.1
30	25.6	25.0	25.3	25.2	24.7	25.0	26.2	25.4	25.8	22.6	22.1	22.3
31	---	---	---	25.8	24.8	25.3	26.0	25.4	25.6	---	---	---
MONTH	25.6	18.5	22.9	27.2	24.4	25.9	27.4	24.8	25.8	26.1	22.0	24.6

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.3	8.2	9.2	9.6	8.8	9.3	---	---	---	10.9	10.4	10.6
2	10.5	8.7	9.7	9.3	8.6	9.0	---	---	---	11.2	10.8	11.0
3	11.8	9.3	10.1	9.0	8.2	8.4	9.4	9.1	9.3	11.5	10.8	11.1
4	11.7	9.1	10.3	8.9	7.4	8.5	9.5	9.0	9.3	12.0	11.2	11.6
5	11.3	9.2	10.2	8.8	7.6	8.5	9.8	9.3	9.5	12.1	11.6	11.8
6	10.1	6.6	9.2	9.6	7.8	8.9	9.6	9.0	9.3	12.1	11.5	11.8
7	11.5	9.8	10.5	9.0	8.0	8.7	9.2	8.8	8.9	12.0	11.4	11.7
8	11.4	9.3	10.6	9.3	7.5	8.8	9.1	8.4	8.8	12.4	11.6	12.1
9	11.0	8.8	10.1	8.9	8.4	8.7	8.9	8.3	8.6	12.6	12.1	12.4
10	11.0	9.0	10.1	9.6	8.5	9.0	8.8	8.5	8.7	12.6	12.2	12.4
11	10.5	9.0	9.9	9.4	7.5	8.9	8.6	8.2	8.5	12.8	12.1	12.3
12	9.8	8.1	9.2	9.2	7.3	8.8	8.5	8.2	8.3	12.9	12.2	12.6
13	9.5	8.2	9.0	9.4	8.6	9.0	8.4	8.2	8.3	13.1	12.6	12.9
14	9.4	8.2	8.9	9.3	8.6	9.0	8.8	8.3	8.5	13.3	12.6	12.9
15	9.7	8.5	9.1	9.1	8.4	8.7	8.8	8.5	8.7	13.0	12.5	12.8
16	9.8	8.7	9.4	9.2	8.6	8.9	8.7	8.4	8.5	13.6	12.4	12.9
17	9.6	8.7	9.2	9.4	7.4	8.8	8.7	8.5	8.6	13.4	12.8	13.1
18	10.9	8.6	9.9	9.8	6.7	9.1	8.7	8.3	8.4	13.7	12.7	13.1
19	10.9	9.4	10.5	9.8	7.5	8.9	8.8	8.3	8.5	13.4	12.6	13.2
20	10.8	9.8	10.3	9.4	6.2	8.9	8.9	8.3	8.6	13.6	12.6	13.1
21	10.6	9.3	9.8	10.0	6.2	9.3	9.1	8.9	9.0	13.5	12.8	13.2
22	10.7	9.5	10.0	10.3	9.3	9.9	10.1	8.9	9.1	13.5	12.9	13.2
23	11.1	10.2	10.6	10.2	9.3	9.8	10.6	9.2	9.6	14.7	12.8	13.2
24	10.3	8.9	9.6	9.5	6.9	9.1	9.4	9.0	9.3	14.7	14.3	14.5
25	9.7	8.6	9.2	9.0	6.9	8.7	9.4	9.0	9.2	14.9	---	---
26	9.6	8.8	9.2	9.2	8.2	8.7	9.8	9.4	9.6	---	---	---
27	9.6	7.8	9.1	9.3	8.6	9.0	10.2	9.6	9.9	---	---	---
28	10.2	7.5	9.3	---	---	---	10.1	9.7	9.9	---	---	---
29	9.9	6.5	9.1	---	---	---	10.1	9.7	9.9	9.7	9.6	9.6
30	9.5	7.8	9.0	---	---	---	10.2	9.8	10.0	9.8	9.6	9.8
31	9.5	8.1	8.9	---	---	---	10.6	10.2	10.4	9.8	9.6	9.7
MONTH	11.8	6.5	9.7	10.3	6.2	8.9	10.6	8.2	9.1	14.9	9.6	12.2

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

OXYGEN DISSOLVED FROM THE DCP, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.2	9.8	10	12.9	12.2	12.5	12.6	12.2	12.5	10.8	9.0	9.8
2	10.3	10.1	10.2	12.7	12.4	12.5	12.4	12.1	12.2	9.3	8.8	9.1
3	10.2	10.1	10.2	12.8	12.3	12.5	12.5	12.2	12.3	9.1	8.8	8.9
4	10.5	10.1	10.3	13.1	12.4	12.7	13.4	11.3	12.3	9.1	8.6	8.8
5	10.6	10.5	10.6	13.7	13.0	13.4	12.2	10.1	11.1	9.1	8.4	8.8
6	10.7	10.5	10.6	14.0	13.4	13.7	12.1	11.1	11.8	8.7	8.3	8.5
7	10.8	10.6	10.7	14.2	13.6	13.8	11.8	10.7	11.4	9.0	8.0	8.5
8	10.8	10.6	10.7	14.1	13.7	13.9	10.9	9.5	10	11.6	8.8	10
9	10.9	10.6	10.8	14.1	13.3	13.5	9.7	9.5	9.6	9.6	9.0	9.3
10	11.0	10.8	10.9	13.4	13.0	13.2	11.1	9.6	9.9	10.9	9.1	9.9
11	11.2	11.0	11.1	14.0	13.2	13.6	10.3	10.0	10.1	10.2	9.5	9.8
12	11.3	11.1	11.2	14.1	13.4	13.8	10.2	9.9	10.1	10.0	9.5	9.7
13	11.5	11.2	11.3	13.7	13.0	13.4	10.2	9.9	10.0	9.8	9.3	9.5
14	11.5	11.4	11.5	13.9	13.1	13.6	10.1	9.7	9.9	11.9	9.5	11.4
15	11.7	11.4	11.5	13.6	12.8	13.3	10.5	9.7	10.1	11.7	9.7	10.7
16	11.9	11.3	11.5	12.9	12.2	12.5	11.1	10.1	10.6	11.8	10.8	11.4
17	11.7	11.5	11.6	13.6	11.9	12.6	11.6	10.7	11.0	11.3	9.2	10.2
18	11.9	11.6	11.8	13.5	12.8	13.1	12.2	10.8	11.4	11.8	9.1	10.7
19	12.0	11.7	11.9	12.8	11.6	12.2	11.8	11.2	11.4	12.0	9.6	11.1
20	12.0	11.7	11.9	11.9	11.6	11.8	11.4	10.9	11.2	9.6	9.1	9.4
21	12.6	11.7	12.0	12.0	11.8	11.9	11.5	10.7	11.1	9.6	9.0	9.3
22	12.1	11.9	12.0	12.3	12.0	12.1	10.7	10.0	10.3	9.9	9.3	9.5
23	12.2	11.9	12.1	12.2	11.8	12.1	11.7	10.2	10.8	10.3	9.6	10
24	12.4	11.9	12.1	12.5	11.9	12.3	11.3	10.2	10.6	10.7	10.0	10.3
25	12.6	12.2	12.4	12.8	12.3	12.6	11.0	9.7	10.4	10.9	10.0	10.5
26	12.6	11.9	12.1	13.2	12.7	12.9	10.9	10.3	10.6	10.7	9.5	10.2
27	12.5	11.9	12.2	13.1	12.6	13.0	10.7	10.2	10.4	10.5	9.4	9.9
28	12.8	12.2	12.5	13.0	12.8	12.9	10.6	9.7	10.2	9.8	8.9	9.4
29	---	---	---	13.0	12.3	12.8	10.9	9.6	10.2	10.4	8.4	9.4
30	---	---	---	13.0	12.7	12.9	11.4	10.3	10.8	9.9	8.6	9.1
31	---	---	---	12.9	12.6	12.8	---	---	---	10.5	8.6	9.4
MONTH	12.8	9.8	11.3	14.2	11.6	12.9	13.4	9.5	10.8	12.0	8.0	9.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.8	8.5	9.2	6.6	5.3	5.9	6.6	4.9	5.9	7.3	5.9	6.5
2	9.2	7.7	8.8	6.2	4.3	5.3	7.0	5.8	6.3	6.8	5.8	6.4
3	9.2	7.8	8.5	6.0	3.4	5.1	7.4	5.6	6.5	6.4	5.2	6.0
4	8.6	7.3	8.1	5.8	4.6	5.2	6.8	5.2	6.0	6.0	4.8	5.6
5	8.5	6.1	7.9	6.3	4.9	5.7	6.4	5.2	5.8	6.6	4.5	5.4
6	7.8	7.0	7.5	6.5	5.0	5.9	6.0	5.1	5.5	6.9	4.8	5.7
7	7.9	6.6	7.4	7.0	5.7	6.3	6.3	5.4	5.9	7.1	4.9	5.9
8	8.7	7.5	8.0	6.3	5.6	5.9	7.3	5.6	6.2	6.6	5.0	5.7
9	8.3	7.2	7.7	7.0	4.0	6.0	7.2	5.5	6.2	6.1	4.2	5.3
10	7.7	7.1	7.4	6.4	5.1	5.8	7.4	5.5	6.5	5.9	4.1	4.9
11	7.1	5.9	6.7	6.3	5.4	5.8	6.9	5.1	6.3	5.5	3.9	4.8
12	6.6	5.2	6.1	6.9	5.4	6.2	6.2	4.7	5.5	6.7	4.5	5.8
13	6.7	4.8	6.0	6.9	6.1	6.7	5.9	4.6	5.3	7.2	5.5	6.3
14	6.2	5.3	5.8	7.3	6.9	7.1	6.1	4.8	5.5	7.6	5.1	6.8
15	6.6	5.4	5.9	8.0	6.9	7.5	6.3	4.9	5.5	7.3	6.1	6.6
16	7.1	5.8	6.5	8.2	6.9	7.6	6.6	5.4	6.1	6.1	5.4	5.7
17	7.5	5.0	6.5	7.4	6.2	6.9	7.2	5.6	6.5	6.5	5.3	5.9
18	7.2	5.5	6.6	7.4	6.3	6.8	6.8	5.9	6.4	7.8	5.6	6.6
19	7.7	6.1	6.9	7.2	5.2	6.6	7.0	6.5	6.8	7.4	5.4	6.5
20	6.8	5.5	6.3	7.2	6.1	6.6	7.1	6.2	6.6	7.8	5.6	6.9
21	7.2	5.4	6.3	7.6	6.0	6.8	7.6	6.3	6.8	7.8	5.3	6.5
22	7.0	5.8	6.4	6.9	5.7	6.2	7.6	5.9	6.7	7.0	6.2	6.5
23	6.9	6.0	6.5	6.2	5.7	5.9	6.8	5.4	6.1	8.1	6.1	7.2
24	6.6	6.1	6.3	6.0	4.8	5.5	6.8	5.6	6.0	8.0	6.6	7.3
25	6.6	5.1	5.9	6.6	4.5	5.5	6.8	5.5	6.1	8.2	6.9	7.7
26	6.3	4.7	5.9	6.7	5.3	6.2	6.4	4.8	5.7	7.6	6.6	7.0
27	7.2	3.7	5.9	6.4	5.9	6.1	6.1	4.8	5.7	9.2	6.7	7.6
28	6.3	3.9	5.7	6.7	5.9	6.3	6.5	5.0	5.9	7.4	6.8	7.0
29	6.5	5.5	6.1	6.7	5.9	6.2	6.0	5.1	5.5	7.8	6.6	7.3
30	6.4	5.1	5.8	6.2	5.7	6.0	6.6	5.2	5.9	8.8	7.0	7.9
31	---	---	---	6.7	5.3	6.1	6.8	5.4	6.2	---	---	---
MONTH	9.8	3.7	6.8	8.2	3.4	6.2	7.6	4.6	6.1	9.2	3.9	6.4

CUMBERLAND RIVER BASIN

03426310 CUMBERLAND RIVER AT OLD HICKORY DAM (TAILWATER), TN--Continued

TURBIDITY, in (NTU), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8	3	6	4	6	4	8	6	33	23	9	6
2	6	2	7	4	5	4	7	6	29	22	8	7
3	6	2	6	4	17	4	7	4	24	20	8	7
4	4	2	6	2	20	6	8	3	22	18	9	7
5	7	3	7	4	15	6	6	4	18	14	8	6
6	7	3	8	4	26	7	5	4	15	13	8	6
7	6	3	8	4	23	8	7	4	13	11	8	6
8	5	2	7	3	17	5	5	4	12	10	7	6
9	5	2	10	6	6	5	6	3	14	9	9	7
10	5	3	12	6	6	4	5	4	11	9	9	6
11	6	3	11	6	7	5	5	4	11	8	8	6
12	6	3	9	6	7	5	6	4	11	8	9	6
13	6	3	---	---	7	5	6	4	9	8	8	6
14	8	4	---	---	7	5	8	4	9	7	8	6
15	8	4	---	---	8	6	6	4	9	7	9	6
16	9	4	---	---	11	6	6	4	9	8	8	6
17	7	4	---	---	9	6	6	4	10	8	19	6
18	9	3	---	---	9	7	8	4	10	7	51	17
19	8	4	5	2	9	6	8	5	11	7	120	51
20	6	4	4	1	8	6	8	4	11	7	110	45
21	9	4	4	2	8	6	6	4	11	7	68	42
22	6	4	6	2	7	5	6	4	10	7	81	52
23	7	5	4	3	7	6	12	4	9	7	83	58
24	6	5	12	2	9	5	42	7	9	7	58	38
25	8	4	5	2	8	5	110	22	9	7	38	31
26	8	5	4	2	8	5	110	41	10	7	32	26
27	8	3	5	2	8	6	---	---	10	7	32	21
28	8	4	5	2	8	6	---	---	8	7	26	19
29	6	2	6	2	8	6	43	39	---	---	19	16
30	6	3	6	4	7	6	41	32	---	---	19	16
31	6	3	---	---	7	6	42	32	---	---	23	15
MONTH	9	2	12	1	26	4	110	3	33	7	120	6
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	33	20	10	5	10	6	7	2	18	8	10	3
2	40	26	9	6	8	4	6	2	13	10	9	3
3	---	---	11	8	8	3	7	1	14	9	10	5
4	43	39	11	8	7	2	7	4	12	9	13	4
5	45	36	13	9	9	1	8	4	14	9	10	3
6	40	33	15	12	6	2	13	4	14	10	10	4
7	41	26	16	12	9	3	8	5	15	10	9	5
8	29	22	22	12	7	5	8	4	15	10	10	5
9	24	20	17	13	10	4	8	3	15	10	9	5
10	35	18	17	13	12	5	9	4	19	11	13	5
11	20	18	17	15	12	3	7	2	14	8	12	6
12	27	17	18	15	11	4	7	1	16	9	14	6
13	25	18	20	16	13	4	4	2	12	6	15	7
14	29	16	25	19	14	8	7	3	8	5	14	6
15	27	15	28	16	---	---	7	4	5	2	12	8
16	22	15	23	15	---	---	6	2	10	5	10	5
17	20	12	19	13	6	1	8	2	11	5	8	4
18	16	12	21	13	10	2	13	6	11	5	8	4
19	18	12	20	15	8	4	5	2	7	5	10	2
20	15	12	28	14	8	3	4	2	6	4	8	4
21	12	9	28	16	8	5	14	8	7	3	16	2
22	16	9	18	13	7	4	---	---	8	4	54	8
23	13	8	18	11	8	4	---	---	8	5	33	2
24	10	7	14	9	5	4	11	7	9	5	7	2
25	14	7	13	9	8	3	13	6	9	6	14	2
26	11	8	14	9	7	2	14	6	6	5	5	1
27	12	7	22	11	7	2	18	8	8	5	8	1
28	14	8	22	14	8	1	12	7	8	4	---	---
29	10	7	18	12	6	4	11	6	9	2	---	---
30	9	4	15	9	6	3	10	7	9	3	---	---
31	---	---	12	7	---	---	12	7	8	3	---	---
MONTH	45	4	28	5	14	1	18	1	19	2	54	1

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CUMBERLAND RIVER BASIN

03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN

LOCATION.--Lat 36°20'20", long 86°43'04", Davidson County, Hydrologic Unit 05130202, on left bank at downstream end of bridge on U.S. Highway 31W, at mouth of Slater Creek, 400 ft below Lumsley Fork, and 1.2 mi north of Goodlettsville.

DRAINAGE AREA.--27.7 mi², includes Slater Creek.

PERIOD OF RECORD.--August 1993 to current year.

GAGE.--Data collection platform. Datum of gage is 434.99 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 27	0645	2,180	8.36	Mar 17	1930	4,110	12.23
Nov 29	1030	2,490	8.99	Mar 20	0700	2,100	8.20
Nov 29	2130	1,590	7.18	Apr 17	1815	1,820	7.66
Dec 13	0215	1,350	6.66	Apr 24	1245	2,330	8.67
Jan 24	0445	*4,480	*12.96				

Minimum daily discharge, 0.25 ft³/s, Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.65	5.2	83	15	146	17	172	314	12	2.5	3.4	0.40
2	0.66	3.9	46	13	92	18	102	134	10	2.3	3.0	0.34
3	0.71	3.9	33	13	69	18	68	88	8.4	7.8	2.7	0.30
4	0.73	3.8	25	12	54	16	51	92	7.3	4.2	2.6	0.25
5	2.5	3.8	21	11	44	15	42	74	7.5	3.0	2.6	0.27
6	3.4	3.5	19	12	40	15	36	56	53	2.4	2.6	0.27
7	1.6	3.5	19	11	41	15	32	44	30	2.0	2.8	0.36
8	1.2	3.5	39	11	39	14	30	36	18	2.1	2.2	0.34
9	0.97	3.7	38	10	37	41	28	33	13	3.5	2.3	0.31
10	0.88	3.8	31	11	36	53	24	28	10	9.6	2.4	0.29
11	1.1	3.6	25	15	33	42	25	24	8.6	5.9	2.2	0.30
12	11	3.2	53	14	30	44	94	20	7.4	12	2.2	0.43
13	14	3.3	410	13	28	44	142	201	6.7	26	2.4	0.57
14	119	3.3	175	13	25	40	168	97	6.1	11	2.7	0.75
15	31	3.3	95	11	24	37	89	51	5.6	7.2	4.4	3.5
16	16	3.4	63	11	23	34	59	37	5.3	5.6	8.6	3.0
17	11	3.4	111	11	21	898	192	67	5.1	4.8	6.8	1.4
18	8.5	3.4	101	14	19	426	165	100	4.6	4.7	6.3	1.8
19	7.0	3.7	67	45	18	298	85	48	4.1	4.5	6.1	1.1
20	5.9	4.3	47	49	25	716	60	34	3.8	3.9	12	11
21	5.3	3.5	37	42	22	215	45	27	3.4	3.6	4.1	9.0
22	5.0	3.1	32	42	20	118	36	22	3.1	4.6	2.8	2.1
23	4.8	3.1	56	195	19	80	30	18	3.0	5.5	2.4	1.1
24	8.0	11	47	1160	18	60	466	16	3.1	5.5	1.9	0.67
25	13	8.9	39	193	17	47	319	13	4.4	4.4	1.7	0.67
26	8.5	6.4	33	104	22	231	115	20	3.7	3.8	1.6	252
27	6.9	370	29	74	19	124	74	16	3.1	3.8	1.2	223
28	6.2	78	25	58	18	81	89	13	3.7	4.5	0.65	48
29	5.9	1060	22	47	---	61	55	31	3.2	3.8	0.53	25
30	5.5	290	19	66	---	49	46	25	2.7	4.1	0.43	16
31	5.3	---	17	64	---	316	---	16	---	4.2	0.42	---
TOTAL	312.20	1907.5	1857	2360	999	4183	2939	1795	259.9	172.8	98.03	604.52
MEAN	10.07	63.58	59.90	76.13	35.68	134.9	97.97	57.90	8.663	5.574	3.162	20.15
MAX	119	1060	410	1160	146	898	466	314	53	26	12	252
MIN	0.65	3.1	17	10	17	14	24	13	2.7	2.0	0.42	0.25
CFSM	0.36	2.30	2.16	2.75	1.29	4.87	3.54	2.09	0.31	0.20	0.11	0.73
IN.	0.42	2.56	2.49	3.17	1.34	5.62	3.95	2.41	0.35	0.23	0.13	0.81

03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

MEAN	9.525	32.58	49.98	72.03	75.50	100.8	67.87	47.46	36.09	7.852	4.882	9.442
MAX	21.7	81.9	123	157	169	251	116	97.3	127	12.7	14.0	52.2
(WY)	1996	1997	1997	1999	1994	1997	1998	1998	1998	1998	1994	1996
MIN	1.40	2.94	10.1	15.4	35.7	39.4	23.2	12.7	5.31	2.58	1.17	0.38
(WY)	2001	1999	2000	2000	2002	2000	1995	2001	2000	1995	1993	1999

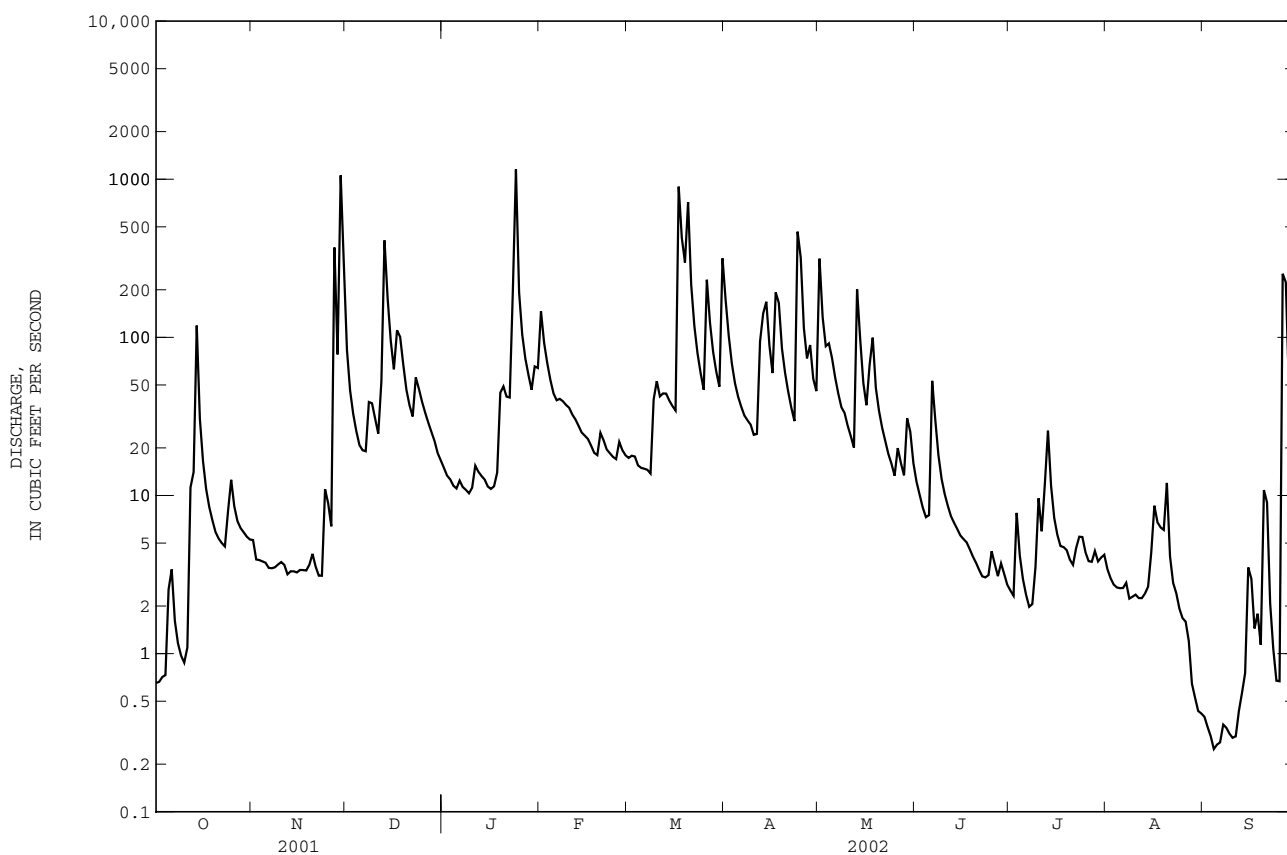
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1993 - 2002

ANNUAL TOTAL	12203.76	17487.95	
ANNUAL MEAN	33.43	47.91	42.75
HIGHEST ANNUAL MEAN			63.9
LOWEST ANNUAL MEAN			20.9
HIGHEST DAILY MEAN	1060	Nov 29	1160
LOWEST DAILY MEAN	0.57	Sep 28	0.25
ANNUAL SEVEN-DAY MINIMUM	0.62	Sep 27	0.30
MAXIMUM PEAK FLOW			4480
MAXIMUM PEAK STAGE			12.96
ANNUAL RUNOFF (CFSM)	1.21		1.73
ANNUAL RUNOFF (INCHES)	16.39		23.49
10 PERCENT EXCEEDS	62		100
50 PERCENT EXCEEDS	11		14
90 PERCENT EXCEEDS	1.8		1.9



CUMBERLAND RIVER BASIN

03426470 DRY CREEK NEAR EDENWOLD, TN

LOCATION.--Lat 36°17'05", long 86°42'24", Davidson County, Hydrologic Unit 05130202, on right wingwall on downstream side of bridge on Gallatin Pike, 0.6 mi southwest of Edenwold, 0.6 mi northeast of Amqui, and at mile 1.2.

DRAINAGE AREA.--7.64 mi².

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Data collection platform. Elevation of gage is 430 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1000	2,050	8.33	May 1	0100	2,190	8.42
Jan 24	0415	3,830	9.30	Jul 12	1515	2,590	8.67
Mar 17	1900	*4,530	*9.59				

Minimum discharge, 0.11 ft³/s, Oct. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	0.69	19	3.1	38	4.5	38	204	1.9	1.1	1.2	0.49
2	0.14	0.67	9.8	2.9	19	4.4	21	31	1.7	0.99	0.93	0.42
3	0.13	0.62	6.7	2.6	16	4.4	15	22	1.6	17	0.78	0.45
4	0.13	0.58	4.7	2.5	14	4.2	12	30	1.5	4.4	0.67	0.44
5	2.3	0.56	3.5	2.4	12	4.0	10	20	1.5	2.3	0.58	0.44
6	2.0	0.49	3.6	2.7	11	3.8	8.8	15	66	1.6	0.54	0.41
7	0.93	0.54	4.6	2.5	15	3.8	7.6	11	9.8	1.3	0.46	0.42
8	0.70	0.47	13	2.3	16	3.5	6.9	9.3	4.9	3.7	0.41	0.38
9	0.56	0.43	11	2.3	14	7.1	6.7	8.7	3.4	7.1	0.38	0.32
10	0.50	0.59	7.5	2.4	12	6.5	5.8	7.0	2.7	78	0.39	0.31
11	0.54	0.45	5.3	3.7	10	5.7	6.0	5.9	2.3	13	0.35	0.28
12	7.0	0.46	13	3.2	9.6	9.1	11	4.9	2.0	189	0.33	0.23
13	9.2	0.50	230	3.0	8.5	10	38	74	2.2	35	0.33	0.24
14	75	0.52	57	2.8	7.6	8.5	27	19	1.9	11	1.1	0.37
15	7.9	0.51	21	2.7	7.0	8.5	15	11	1.7	4.6	1.1	5.0
16	5.8	0.51	13	2.5	6.5	15	11	8.2	1.6	3.9	15	2.2
17	2.3	0.49	20	2.4	6.0	578	39	8.8	1.5	2.0	2.6	1.1
18	1.3	0.53	18	4.0	5.6	179	29	8.3	1.4	1.7	1.2	0.97
19	1.1	0.65	12	21	5.1	79	16	6.2	1.3	1.4	0.90	0.87
20	0.94	0.68	8.4	14	7.5	209	12	5.0	1.1	1.1	2.4	4.9
21	0.84	0.65	6.9	9.9	6.5	53	10	4.5	1.0	0.96	1.0	4.8
22	0.74	0.63	5.5	10	5.7	27	8.4	4.0	0.93	1.1	56	1.8
23	0.78	0.67	11	63	5.2	19	7.2	3.5	0.93	3.0	5.5	1.2
24	2.1	1.3	8.5	432	4.8	14	150	3.2	0.95	2.7	1.9	0.98
25	3.3	1.3	7.3	55	4.5	12	46	3.0	1.9	1.6	1.3	0.96
26	1.8	1.0	6.2	27	6.4	45	21	3.4	1.1	1.1	1.0	261
27	1.3	56	5.3	19	5.4	20	15	3.0	2.5	0.92	0.83	168
28	1.0	15	4.5	15	4.9	15	36	2.7	2.3	0.94	0.76	21
29	0.92	481	3.8	13	---	12	15	2.4	1.4	1.0	0.68	10
30	0.79	87	3.4	15	---	12	13	2.3	1.2	3.0	0.59	6.2
31	0.71	---	3.1	15	---	130	---	2.0	---	1.9	0.56	---
TOTAL	132.91	655.49	546.6	758.9	283.8	1507.0	657.4	543.3	126.21	398.41	101.77	496.18
MEAN	4.287	21.85	17.63	24.48	10.14	48.61	21.91	17.53	4.207	12.85	3.283	16.54
MAX	75	481	230	432	38	578	150	204	66	189	56	261
MIN	0.13	0.43	3.1	2.3	4.5	3.5	5.8	2.0	0.93	0.92	0.33	0.23
CFSM	0.56	2.86	2.31	3.20	1.33	6.36	2.87	2.29	0.55	1.68	0.43	2.16
IN.	0.65	3.19	2.66	3.70	1.38	7.34	3.20	2.65	0.61	1.94	0.50	2.42

03426470 DRY CREEK NEAR EDENWOLD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	2.257	11.61	16.29	21.41	17.98	26.17	18.07	9.921	17.40	3.940	1.451	3.400
MAX	5.15	30.8	34.2	49.9	38.1	57.0	48.5	20.8	47.3	12.9	3.28	16.5
(WY)	1997	1997	1997	1999	2001	1997	1998	1998	1998	2002	2002	2002
MIN	0.17	0.68	4.46	6.56	10.1	7.85	5.78	2.51	1.16	0.33	0.20	0.12
(WY)	2001	1999	2000	2000	2002	2001	2001	2001	2000	2000	2000	1999

SUMMARY STATISTICS

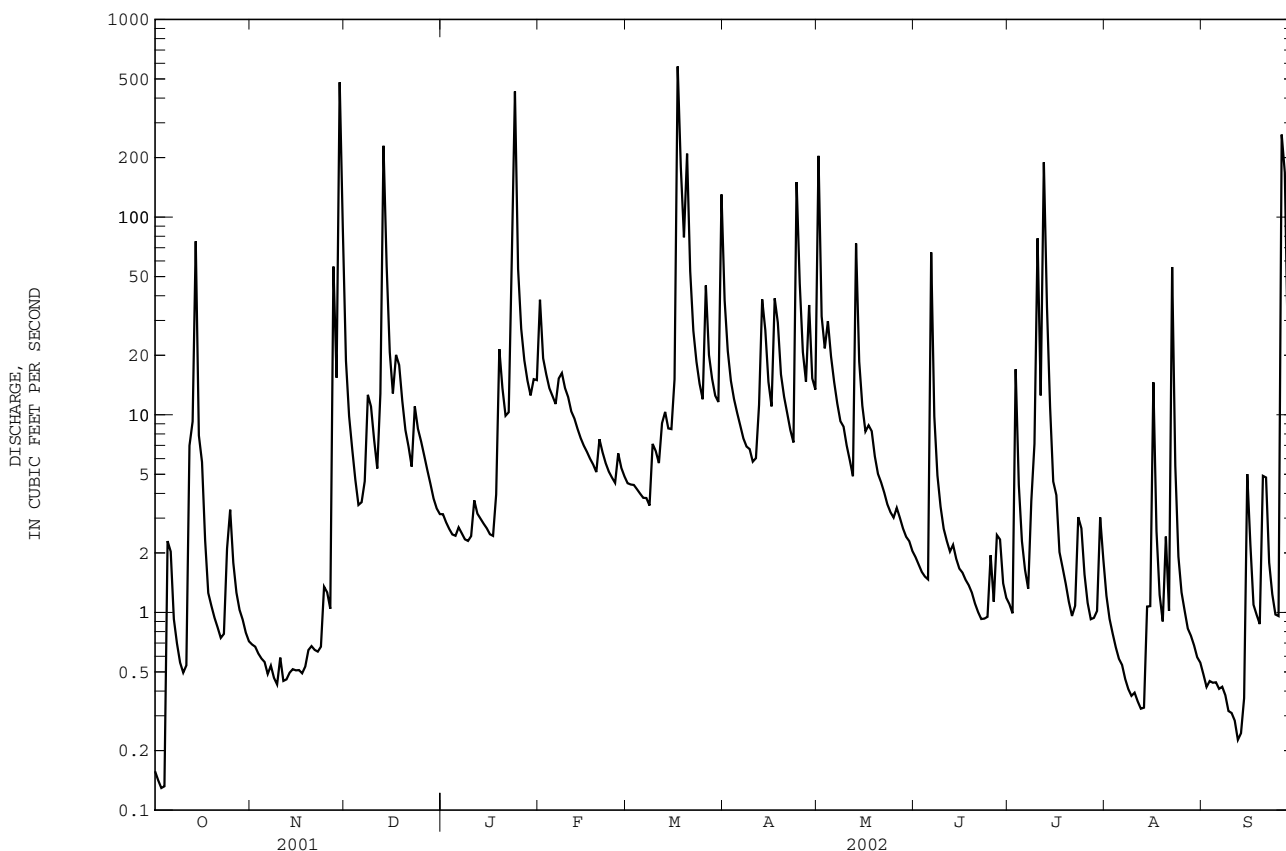
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1997 - 2002

ANNUAL TOTAL	3602.19	6207.97	
ANNUAL MEAN	9.869	17.01	12.45
HIGHEST ANNUAL MEAN			17.6
LOWEST ANNUAL MEAN			5.12
HIGHEST DAILY MEAN	481	Nov 29	578
LOWEST DAILY MEAN	0.13	Oct 3	0.13
ANNUAL SEVEN-DAY MINIMUM	0.16	Sep 28	0.30
MAXIMUM PEAK FLOW			4530
MAXIMUM PEAK STAGE			9.59
INSTANTANEOUS LOW FLOW			a0.11
ANNUAL RUNOFF (CFSM)	1.29	2.23	1.63
ANNUAL RUNOFF (INCHES)	17.54	30.23	22.14
10 PERCENT EXCEEDS	14	27	21
50 PERCENT EXCEEDS	1.8	3.8	2.8
90 PERCENT EXCEEDS	0.41	0.53	0.24

a Also occurred Oct. 4.



CUMBERLAND RIVER BASIN

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN

LOCATION.--Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 50 (revised) ft upstream from highway bridge, 2.5 mi southwest of Lascassas, 3.7 mi downstream from Bradley Creek, 6.0 mi northeast of the courthouse in Murfreesboro, and at mile 15.4.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--October 1950 to November 1958, May 1963 to September 1991, October 1991 to September 2000, crest-stage partial record station. October 2000 to current year. Prior to February 1951 monthly discharge only, published in WSP 1726.

REVISED RECORDS.--WSP 1910: Drainage Area. WDR-TN-75-1: 1955(M), 1963(M), 1970(M), 1973 (M) (P).

GAGE.--Water-stage encoder and satellite telemeter at station. Datum of gage is 507.88 ft, Sandy Hook datum (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1973, water-stage recorder 100 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Frequent diurnal fluctuation at low flow caused by small mills above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1902, 39.48 ft, Mar. 13, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2330	*21,800	*31.89	Mar 31	1630	12,100	23.15
Mar 17	1830	20,700	31.19	May 13	1700	8,980	19.60

Minimum discharge, 6.7 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	36	579	90	514	122	3990	1110	55	21	57	46
2	29	34	295	80	582	117	1460	553	50	18	38	36
3	26	32	185	73	434	123	850	1210	45	18	28	28
4	24	31	131	67	370	118	587	1680	41	29	23	24
5	24	29	100	62	307	107	437	1030	38	35	20	21
6	95	28	82	65	282	101	346	578	52	26	18	18
7	92	27	82	95	539	98	288	380	46	19	16	16
8	62	26	1190	110	670	95	249	275	42	17	14	15
9	46	25	1120	98	528	95	226	214	38	16	13	13
10	38	24	581	92	424	105	195	179	34	349	12	11
11	33	23	901	99	362	101	168	170	31	319	72	9.9
12	35	23	572	123	307	121	153	142	29	129	28	9.4
13	38	22	604	119	267	313	141	3650	29	186	18	7.9
14	1500	22	1690	107	230	288	132	2200	28	406	14	7.1
15	725	21	954	96	205	240	123	789	28	154	14	7.4
16	297	21	525	84	189	375	112	460	26	89	15	8.5
17	163	21	365	77	170	12900	103	314	25	62	15	13
18	108	21	509	86	149	10100	96	390	24	49	23	21
19	82	20	392	2150	134	2910	90	303	23	45	24	197
20	65	22	280	1810	163	2090	85	216	21	42	23	82
21	54	21	207	818	250	1440	80	169	20	36	25	1340
22	46	21	164	501	201	872	77	140	19	33	20	314
23	41	23	790	10800	172	642	71	121	18	36	17	175
24	40	30	863	16700	155	498	72	106	18	45	19	101
25	263	112	478	7860	141	393	114	94	18	42	823	68
26	106	82	319	2040	142	668	90	85	18	40	577	1200
27	74	109	240	1060	146	710	74	83	20	45	160	3940
28	57	202	189	729	131	492	89	82	21	33	153	983
29	47	350	153	551	---	398	243	70	20	31	222	408
30	43	1550	124	425	---	1940	137	64	21	41	111	229
31	38	---	104	339	---	7460	---	58	---	109	65	---
TOTAL	4323	3008	14768	47406	8164	46032	10878	16915	898	2520	2677	9349.2
MEAN	139.5	100.3	476.4	1529	291.6	1485	362.6	545.6	29.93	81.29	86.35	311.6
MAX	1500	1550	1690	16700	670	12900	3990	3650	55	406	823	3940
MIN	24	20	82	62	131	95	71	58	18	16	12	7.1
CFSM	0.53	0.38	1.82	5.84	1.11	5.67	1.38	2.08	0.11	0.31	0.33	1.19
IN.	0.61	0.43	2.10	6.73	1.16	6.54	1.54	2.40	0.13	0.36	0.38	1.33

CUMBERLAND RIVER BASIN

87

03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	150.4	385.4	747.1	827.8	864.0	940.6	621.5	453.6	174.5	122.1	83.80	154.2
MAX	1211	1466	2027	2184	2136	3201	1605	2214	1261	898	448	1078
(WY)	1976	1987	1991	1974	1956	1975	1973	1984	1989	1989	1966	1986
MIN	7.13	9.56	19.6	55.4	205	205	69.5	34.6	9.62	16.8	13.3	10.9
(WY)	1954	1954	1966	1981	1968	1966	1986	1988	1988	1988	1957	1968

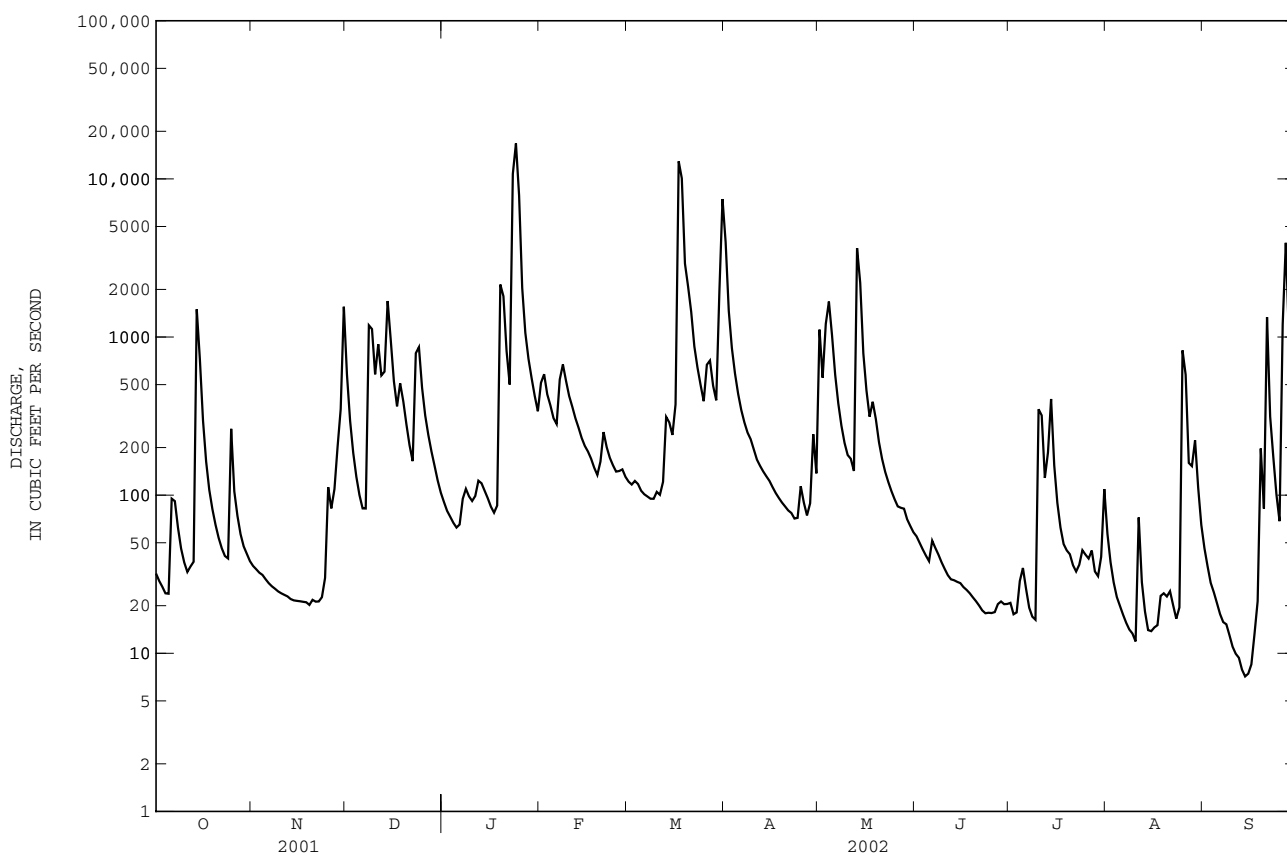
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1951 - 2002

ANNUAL TOTAL	110402	166938.2	
ANNUAL MEAN	302.5	457.4	456.5
HIGHEST ANNUAL MEAN			921
LOWEST ANNUAL MEAN			141
HIGHEST DAILY MEAN	8420	Feb 17	16700
LOWEST DAILY MEAN	11	Aug 30	7.1
ANNUAL SEVEN-DAY MINIMUM	13	Aug 25	8.7
MAXIMUM PEAK FLOW			21800
MAXIMUM PEAK STAGE			31.89
INSTANTANEOUS LOW FLOW			6.7
ANNUAL RUNOFF (CFSM)	1.15	1.75	1.74
ANNUAL RUNOFF (INCHES)	15.68	23.70	23.67
10 PERCENT EXCEEDS	633	834	962
50 PERCENT EXCEEDS	78	98	118
90 PERCENT EXCEEDS	21	20	16



CUMBERLAND RIVER BASIN

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN

LOCATION.--Lat 35°54'10", long 86°25'48", Rutherford County, Hydrologic Unit 05130203, on left bank at Murfreesboro sewage treatment plant outfall, 3,000 ft downstream from Sinking Creek, 4.5 mi northwest of the courthouse in Murfreesboro, and at mile 10.7.

DRAINAGE AREA.--177 mi², includes 17 mi² without surface drainage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1972 to January 1982, January 1986 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 514.95 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow is affected by Murfreesboro sewage treatment plant outflow. An annual average of 11.6 ft³/s, with a maximum of 15.5 ft³/s is discharged to the West Fork Stones River 25 ft above the station. Prior to July 1987 an annual average of 7.7 ft³/s was discharged. Natural flow of stream affected by transbasin diversion of water from East Fork Stones River basin into the West Fork Stones River basin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	0230	*19,400	*21.09	Mar 18	1400	6,450	13.89
Jan 24	2030	12,600	18.31	Mar 31	2100	9,010	16.12
Mar 17	2100	18,100	20.60	Sep 27	1130	3,890	10.23

Minimum discharge, 8.0 ft³/s, Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	49	458	124	470	105	2450	165	48	38	32	25
2	46	47	309	113	448	99	907	192	43	28	27	23
3	43	48	247	105	358	98	585	480	41	26	24	22
4	40	45	207	96	317	92	447	984	38	23	21	21
5	42	41	169	89	277	86	362	537	37	22	18	21
6	164	39	144	100	270	81	303	344	95	20	21	18
7	91	37	149	112	365	76	266	269	56	19	19	17
8	79	37	284	121	403	73	237	212	46	21	18	17
9	66	36	499	112	335	82	221	159	40	19	17	16
10	57	36	373	106	299	78	197	149	37	23	17	16
11	53	35	482	118	283	77	184	142	35	32	19	15
12	82	35	384	132	253	112	167	121	33	25	18	15
13	76	34	428	126	231	275	144	1430	35	64	17	15
14	681	32	991	116	210	239	127	882	38	108	16	14
15	443	38	617	106	189	196	120	409	31	49	19	14
16	269	32	410	97	175	206	109	291	29	44	20	27
17	211	30	353	91	158	8270	99	251	29	38	20	23
18	160	29	473	113	144	5750	92	265	28	35	19	26
19	131	29	340	1040	132	1710	81	233	24	48	18	28
20	109	32	275	1000	175	1220	75	181	23	36	18	26
21	93	31	234	500	222	937	69	148	21	33	19	263
22	83	27	206	368	182	623	70	126	23	50	19	121
23	72	27	500	6600	157	495	61	108	19	46	17	70
24	72	69	549	12800	140	416	63	92	21	42	21	55
25	113	91	342	6130	129	366	61	80	24	36	21	47
26	74	55	275	1410	139	530	55	73	21	36	82	459
27	68	119	237	833	124	527	53	69	21	34	66	2240
28	62	130	212	600	114	378	121	62	22	41	58	584
29	58	237	184	494	---	354	77	56	19	38	41	312
30	54	946	157	420	---	1720	59	67	56	44	33	223
31	51	---	138	361	---	4840	---	55	---	34	30	---
TOTAL	3695	2473	10626	34533	6699	30111	7862	8632	1033	1152	805	4773
MEAN	119.2	82.43	342.8	1114	239.2	971.3	262.1	278.5	34.43	37.16	25.97	159.1
MAX	681	946	991	12800	470	8270	2450	1430	95	108	82	2240
MIN	40	27	138	89	114	73	53	55	19	19	16	14

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2002, BY WATER YEAR (WY)

MEAN	138.9	263.2	476.2	591.4	513.5	683.0	336.7	209.0	155.9	96.05	71.19	135.1
MAX	894	1035	1259	1453	1156	1773	954	818	765	658	348	880
(WY)	1976	1987	1991	1974	1991	1975	1994	1973	1989	1989	1996	1979
MIN	7.60	10.4	31.6	25.4	133	216	58.4	23.8	11.0	13.9	12.2	11.3
(WY)	1981	1981	1981	1981	1978	1981	1986	1981	1988	1988	1976	1980

SUMMARY STATISTICS

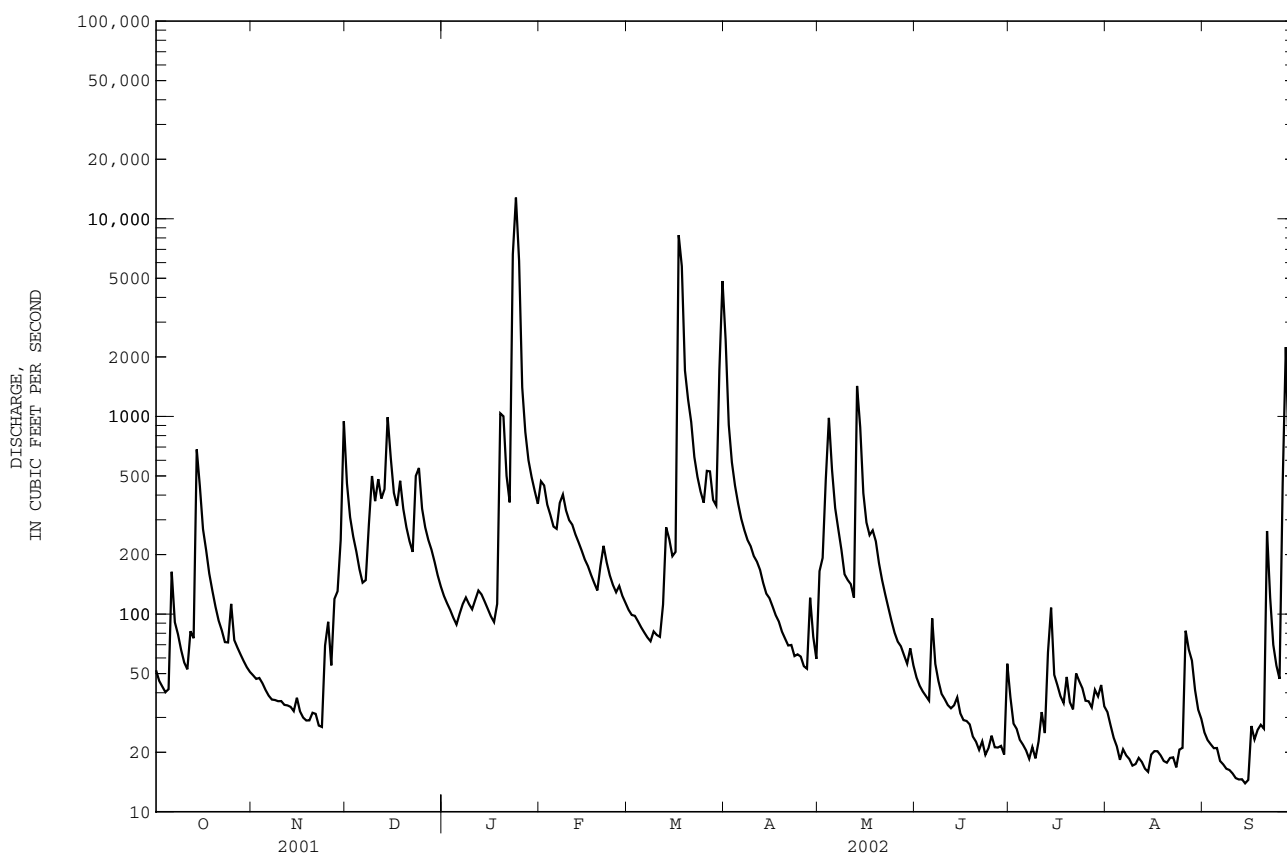
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

aWATER YEARS 1972 - 2002

ANNUAL TOTAL	89140		112394									
ANNUAL MEAN	244.2		307.9									
HIGHEST ANNUAL MEAN									309.6			
LOWEST ANNUAL MEAN									517			1973
HIGHEST DAILY MEAN									76.0			1981
LOWEST DAILY MEAN	6340	Feb 17	12800	Jan 24	21200	Mar 13	1975					
ANNUAL SEVEN-DAY MINIMUM	27	Nov 22	14	Sep 14	4.7	Oct 13	1980					
MAXIMUM PEAK FLOW	29	Nov 17	15	Sep 9	5.3	Nov 8	1980					
MAXIMUM PEAK STAGE			19400	Jan 24	31000	Mar 13	1975					
INSTANTANEOUS LOW FLOW			21.09	Jan 24	23.80	Mar 13	1975					
10 PERCENT EXCEEDS	494		8.0	Sep 12	2.9	Jul 7	1988					
50 PERCENT EXCEEDS	87		494		638							
90 PERCENT EXCEEDS	37		86		109							
			21		16							

a See REMARKS



CUMBERLAND RIVER BASIN

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

WATER-QUALITY RECORDS

LOCATION.--At bridge on Blanton Drive, 900 ft upstream from Sinking Creek, 0.7 mi upstream from discharge station.

PERIOD OF RECORD.--February 1986 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1986 to current year.

pH: February 1986 to current year.

WATER TEMPERATURE: February 1986 to current year.

DISSOLVED OXYGEN: February 1986 to current year.

INSTRUMENTATION.--Water-quality monitor.

REMARKS.--Periods of missing record were due to instrument malfunctions. Records for water temperature and specific conductance are good, pH and dissolved oxygen records are fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 529 microsiemens, Jan. 24, 2000; minimum, 63 microsiemens, Dec. 25, 1987.

pH: Maximum, 9.0 units, Mar. 24, 1986; minimum, 5.8 units, June 18, 1992.

WATER TEMPERATURE: Maximum, 33.3°C, July 31, 1999; minimum, 0.2°C, Feb. 3, 4, 5, 6, 1996.

DISSOLVED OXYGEN: Maximum, 19.0 mg/L, Apr. 10, 2002; minimum, 1.6 mg/L, Sept. 12, 1990.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 465 microsiemens, Oct. 24; minimum, 102 microsiemens, Mar. 17.

pH: Maximum, 8.7 units, Apr. 7, 10; minimum, 7.4 units, many days.

WATER TEMPERATURE: Maximum, 31.8, Aug. 5; minimum, 1.4°C, Jan. 4.

DISSOLVED OXYGEN: Maximum, 19.0 mg/L, Apr. 10; minimum, 3.0 mg/L, Aug. 22.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	381	368	375	455	430	444	377	354	361	454	440	447
2	390	370	383	454	433	444	411	377	395	456	440	448
3	393	377	387	453	436	445	431	411	422	457	445	451
4	395	380	389	451	435	444	443	431	437	457	443	450
5	395	338	386	451	436	445	451	443	446	456	442	449
6	361	300	328	449	436	444	454	451	452	452	443	446
7	356	338	349	448	439	445	457	448	452	453	431	443
8	398	339	366	448	441	445	452	405	423	451	430	440
9	418	398	411	447	442	444	425	411	420	450	434	442
10	426	409	419	447	441	444	429	421	426	449	429	439
11	427	412	421	444	441	443	421	417	419	441	415	429
12	424	418	422	442	438	440	427	420	424	436	410	425
13	424	371	416	438	434	436	426	420	422	440	405	425
14	387	321	360	435	432	434	423	372	407	438	409	424
15	364	341	348	436	429	433	375	351	361	439	407	424
16	394	350	373	435	428	431	409	375	393	436	407	422
17	421	394	408	434	431	433	423	409	418	429	411	420
18	438	421	428	433	429	431	428	418	425	423	407	415
19	448	438	442	432	429	430	419	415	417	416	243	359
20	455	448	452	431	429	430	427	419	422	322	241	277
21	461	451	456	431	427	430	437	427	431	384	322	357
22	463	451	458	430	428	429	445	437	440	404	384	397
23	464	446	457	429	426	427	445	400	424	402	109	250
24	465	356	451	429	406	422	400	329	347	184	108	142
25	446	415	430	407	344	359	383	336	360	263	144	195
26	444	419	432	381	369	376	415	383	401	320	263	295
27	448	424	435	387	344	366	431	415	422	349	320	336
28	457	419	450	404	385	397	440	431	434	365	349	357
29	457	440	451	402	366	389	444	436	440	375	365	370
30	457	432	446	387	355	368	447	437	443	380	375	378
31	455	431	444	---	---	---	450	439	445	383	380	381
MONTH	465	300	412	455	344	425	457	329	417	457	108	385

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	383	365	373	413	393	402	312	161	253	343	182	320
2	373	366	371	416	401	410	356	312	337	356	327	340
3	367	361	363	415	403	408	372	356	364	334	303	320
4	386	367	377	416	395	407	378	367	372	342	293	314
5	396	386	390	404	389	398	380	366	374	346	292	313
6	403	396	398	400	381	393	380	361	374	388	346	370
7	407	399	401	399	380	391	379	352	370	411	388	400
8	406	394	400	396	378	389	378	359	371	424	410	413
9	403	391	397	394	387	391	378	358	372	420	414	417
10	406	399	402	400	388	393	378	325	359	421	410	416
11	410	395	404	394	387	391	373	334	358	417	403	410
12	419	395	409	393	385	390	374	333	358	421	406	415
13	416	393	408	398	384	394	376	333	360	419	202	304
14	418	392	409	406	391	398	384	352	370	315	205	265
15	420	393	409	408	394	402	387	344	367	369	315	346
16	420	383	406	410	407	409	382	344	363	396	369	380
17	420	375	403	410	102	201	376	354	363	395	389	393
18	420	371	400	234	136	199	372	357	364	396	391	393
19	419	375	400	321	234	288	373	362	368	396	386	392
20	411	369	393	341	319	330	376	369	371	395	385	392
21	406	378	395	344	336	339	382	369	374	397	378	390
22	409	389	401	374	344	360	382	364	367	398	366	385
23	409	373	395	384	373	378	370	365	368	398	361	382
24	410	366	392	387	382	385	371	362	367	397	364	382
25	408	366	390	390	383	388	372	368	370	393	371	382
26	407	390	397	389	356	373	372	368	370	390	380	385
27	406	392	400	368	355	360	378	372	375	390	306	380
28	417	391	405	371	356	363	376	302	349	388	367	380
29	---	---	---	383	350	374	326	306	320	385	365	377
30	---	---	---	384	219	276	339	316	326	376	341	363
31	---	---	---	281	147	218	---	---	---	378	353	370
MONTH	420	361	396	416	102	361	387	161	359	424	182	371
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	374	362	369	335	326	330	343	333	338	349	337	345
2	378	362	371	326	314	321	341	332	336	354	349	351
3	373	360	367	319	313	316	336	330	333	350	347	348
4	369	356	363	319	313	317	333	327	329	347	339	342
5	362	352	358	313	301	306	333	325	328	341	334	336
6	355	295	336	301	291	295	335	327	330	338	330	333
7	335	295	323	297	285	292	340	328	335	336	330	333
8	341	335	337	298	268	288	345	332	339	335	327	331
9	357	341	353	301	289	293	346	334	341	333	328	330
10	360	354	357	323	301	311	346	339	342	333	328	330
11	358	353	356	348	323	333	346	338	341	333	328	331
12	358	353	356	355	348	353	348	332	342	329	326	328
13	356	345	351	356	346	351	348	338	343	328	324	326
14	356	348	354	346	238	270	343	337	341	331	326	328
15	362	355	359	304	277	295	345	291	338	332	301	327
16	360	352	356	325	304	319	351	341	345	342	293	322
17	354	352	353	350	325	341	356	351	353	360	342	354
18	353	348	351	355	342	351	358	351	355	362	350	358
19	398	346	373	366	350	358	359	352	356	358	354	357
20	351	347	349	353	325	341	359	354	357	354	221	336
21	350	345	347	333	323	327	357	351	354	367	278	327
22	347	339	343	337	145	290	355	347	352	367	313	338
23	345	335	340	332	257	306	352	339	347	313	281	294
24	347	330	339	362	332	352	350	340	344	281	270	275
25	344	336	340	363	349	358	354	350	352	288	273	283
26	351	344	346	351	341	348	368	325	350	357	254	286
27	350	342	347	349	341	345	368	326	351	357	198	232
28	355	349	351	359	344	352	365	350	358	346	231	296
29	355	346	351	364	348	357	364	354	360	396	346	374
30	366	331	346	353	348	350	357	342	353	421	396	409
31	---	---	---	354	336	348	342	336	338	---	---	---
MONTH	398	295	351	366	145	326	368	291	345	421	198	329

CUMBERLAND RIVER BASIN

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.0	7.6	8.2	8.0	7.6	7.6	8.2	8.0	8.0	7.8	8.3	8.0
2	7.8	7.5	8.1	7.8	7.7	7.6	8.2	8.0	8.0	7.9	8.2	7.9
3	8.0	7.5	7.9	7.8	7.8	7.7	8.2	8.0	8.0	7.9	8.2	7.8
4	7.9	7.7	7.9	7.8	7.9	7.7	8.2	8.0	8.2	7.9	8.2	7.9
5	7.9	7.7	7.9	7.8	8.0	7.8	8.2	8.0	8.2	8.0	8.1	7.9
6	7.7	7.5	7.9	7.8	8.0	7.8	8.1	8.0	8.1	8.0	8.2	7.8
7	7.9	7.4	7.9	7.7	7.8	7.8	8.2	7.9	8.1	8.0	8.0	7.8
8	8.0	7.6	7.8	7.7	7.8	7.6	8.3	8.0	8.2	8.0	8.0	7.7
9	8.1	7.7	7.8	7.7	7.8	7.6	8.3	8.0	8.3	8.0	7.9	7.6
10	8.1	7.7	7.8	7.7	7.8	7.8	8.2	7.8	8.2	8.0	8.0	7.6
11	8.1	7.7	7.8	7.8	7.8	7.8	8.2	7.8	8.4	8.0	8.0	7.7
12	7.9	7.6	7.8	7.7	7.9	7.8	8.2	7.8	8.5	8.1	7.8	7.5
13	7.8	7.5	7.8	7.7	7.8	7.8	8.2	7.8	8.6	8.1	7.8	7.5
14	7.7	7.4	7.7	7.7	7.8	7.8	8.3	7.8	8.6	8.1	8.1	7.7
15	7.6	7.6	7.9	7.7	7.8	7.7	8.3	7.9	8.6	8.1	8.2	7.8
16	7.7	7.6	7.9	7.9	7.9	7.8	8.3	7.9	8.6	8.0	8.0	7.8
17	7.9	7.7	7.9	7.8	7.9	7.9	8.2	7.9	8.6	8.0	7.9	7.5
18	8.0	7.8	7.9	7.7	8.0	7.9	8.3	7.9	8.6	8.1	7.6	7.5
19	8.0	7.8	7.8	7.7	8.1	8.0	7.9	7.6	8.6	8.0	7.7	7.5
20	8.0	7.8	7.8	7.7	8.2	8.0	7.7	7.6	8.6	8.1	7.8	7.7
21	8.1	7.8	7.8	7.8	8.2	8.1	7.8	7.7	8.6	8.0	7.9	7.8
22	8.1	7.8	7.9	7.8	8.2	8.1	8.0	7.8	8.4	8.0	8.0	7.9
23	8.1	7.8	7.8	7.7	8.1	7.9	7.8	7.5	8.5	8.0	8.1	7.9
24	8.0	7.8	7.7	7.5	7.9	7.8	7.5	7.4	8.5	8.0	8.2	8.0
25	7.9	7.6	7.6	7.4	8.0	7.8	7.5	7.4	8.5	8.0	8.3	8.0
26	8.0	7.6	7.7	7.4	8.1	7.9	7.6	7.5	8.2	8.0	8.2	8.0
27	8.1	7.7	7.6	7.4	8.2	8.0	7.7	7.6	8.3	7.9	8.3	8.1
28	8.1	7.8	7.5	7.4	8.2	8.0	7.8	7.7	8.3	8.0	8.5	8.1
29	8.1	7.8	7.5	7.4	8.3	8.0	7.8	7.8	---	---	8.6	8.1
30	8.3	7.8	7.6	7.4	8.3	8.1	7.9	7.8	---	---	8.2	7.9
31	8.3	8.0	---	---	8.3	8.1	8.0	7.8	---	---	8.1	7.8
MONTH	8.3	7.4	8.2	7.4	8.3	7.6	8.3	7.4	8.6	7.8	8.6	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	8.0	7.8	7.8	7.7	8.0	7.6	8.0	7.6	8.2	7.8	8.0	7.8
2	8.1	7.9	7.8	7.7	8.0	7.7	7.8	7.6	8.3	7.8	8.0	7.8
3	8.2	8.0	7.9	7.8	8.0	7.7	7.8	7.6	8.2	7.8	8.1	7.8
4	8.4	8.0	7.9	7.8	7.9	7.6	7.9	7.6	8.1	7.7	8.0	7.8
5	8.5	8.0	7.9	7.8	7.9	7.6	8.0	7.6	8.1	7.7	8.0	7.8
6	8.6	8.0	8.0	7.9	7.7	7.5	8.0	7.6	8.1	7.7	8.0	7.8
7	8.7	8.1	8.1	7.9	7.8	7.4	8.2	7.6	8.1	7.7	8.0	7.8
8	8.6	8.0	8.2	7.9	7.8	7.5	8.1	7.6	8.0	7.7	8.0	7.8
9	8.6	8.0	8.2	8.0	7.9	7.6	8.0	7.6	8.0	7.6	8.0	7.8
10	8.7	8.0	8.1	8.0	7.9	7.6	7.8	7.6	7.9	7.7	8.0	7.8
11	8.4	7.9	8.2	8.0	7.9	7.6	7.8	7.6	8.0	7.6	8.1	7.8
12	8.4	7.9	8.2	8.0	7.9	7.6	7.8	7.7	8.0	7.7	8.0	7.8
13	8.4	7.9	8.1	7.6	7.8	7.6	7.9	7.6	7.9	7.6	8.0	7.8
14	8.4	7.9	7.8	7.6	7.8	7.6	8.0	7.6	7.9	7.6	7.9	7.7
15	8.4	7.9	8.0	7.8	7.8	7.6	8.1	7.6	7.7	7.5	7.8	7.6
16	8.3	7.8	8.1	7.9	7.7	7.6	8.1	7.7	7.7	7.6	7.9	7.7
17	8.2	7.8	8.1	8.0	7.8	7.6	8.2	7.7	7.8	7.6	7.9	7.8
18	8.2	7.8	8.2	8.0	7.8	7.6	8.3	7.9	7.9	7.6	7.8	7.7
19	8.0	7.7	8.3	8.1	7.8	7.6	8.4	7.9	7.8	7.6	7.8	7.7
20	7.9	7.6	8.4	8.1	7.8	7.6	8.3	7.8	7.8	7.6	7.8	7.6
21	7.9	7.6	8.5	8.1	7.8	7.6	8.3	7.9	7.9	7.6	8.0	7.6
22	7.9	7.6	8.5	8.1	7.9	7.6	8.2	7.7	7.9	7.6	7.9	7.7
23	7.9	7.7	8.4	7.9	7.9	7.6	7.9	7.6	7.9	7.6	7.8	7.7
24	7.9	7.7	8.3	7.9	7.9	7.6	8.2	7.7	7.9	7.6	7.9	7.7
25	8.0	7.8	8.2	7.9	7.7	7.6	8.2	7.7	7.8	7.7	7.8	7.7
26	8.0	7.8	8.1	7.8	7.8	7.6	8.3	7.7	8.0	7.7	7.9	7.6
27	8.0	7.8	8.1	7.8	7.8	7.6	8.2	7.8	8.2	7.7	7.9	7.7
28	8.0	7.8	8.1	7.8	7.9	7.6	8.2	7.8	8.2	7.8	7.9	7.7
29	7.9	7.7	8.1	7.8	7.9	7.6	8.1	7.8	8.1	7.8	8.0	7.9
30	7.9	7.6	8.0	7.7	8.1	7.6	8.1	7.8	8.0	7.7	8.0	7.9
31	---	---	8.0	7.6	---	---	8.2	7.8	8.0	7.7	---	---
MONTH	8.7	7.6	8.5	7.6	8.1	7.4	8.4	7.6	8.3	7.5	8.1	7.6

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.2	16.2	17.8	14.7	11.9	13.3	13.6	12.8	13.1	4.3	2.6	3.5
2	19.5	16.8	18.3	16.2	13.8	14.9	13.4	12.0	12.5	3.7	2.3	3.1
3	20.0	17.6	18.9	16.9	15.5	16.1	13.3	11.4	12.2	3.2	2.5	2.9
4	20.1	18.1	19.2	15.9	13.8	14.9	13.6	11.7	12.5	3.4	1.4	2.4
5	20.5	18.8	19.7	15.1	13.3	14.1	13.9	11.9	12.8	4.1	2.0	3.0
6	20.1	17.3	18.6	14.0	12.1	13.0	14.7	12.3	13.5	4.4	4.1	4.3
7	17.7	15.4	16.6	13.2	11.5	12.4	15.0	14.0	14.5	5.2	4.2	4.6
8	17.6	15.0	16.3	13.5	11.5	12.6	15.4	14.7	15.0	5.2	3.3	4.3
9	17.6	15.0	16.3	14.0	12.8	13.4	14.7	12.8	13.8	6.4	3.9	5.1
10	18.9	16.1	17.5	13.0	11.1	12.1	12.8	12.0	12.2	8.3	5.9	6.9
11	18.9	18.0	18.5	12.9	11.4	12.3	12.2	11.9	12.0	8.8	7.6	8.2
12	19.2	18.6	18.9	12.5	11.0	11.8	13.3	12.1	12.6	8.6	6.4	7.6
13	20.2	19.0	19.6	12.5	10.9	11.8	14.3	13.3	13.9	8.2	6.1	7.3
14	20.0	18.6	19.4	12.5	11.1	11.9	14.6	14.2	14.4	8.4	6.6	7.5
15	18.8	17.3	18.0	12.1	10.9	11.7	14.2	13.6	13.9	7.9	6.2	7.2
16	17.4	15.4	16.7	12.0	10.5	11.4	14.0	13.4	13.7	7.4	5.8	6.8
17	16.1	14.1	15.0	12.8	11.1	12.1	14.5	13.9	14.2	7.8	7.1	7.5
18	15.7	12.9	14.2	13.4	11.9	12.7	14.1	12.7	13.5	7.9	6.4	7.2
19	15.5	13.0	14.2	13.3	12.4	12.9	12.7	11.1	12.0	7.6	5.9	6.8
20	16.2	13.3	14.7	12.9	10.5	11.7	11.1	9.2	10.3	8.0	6.0	7.0
21	16.9	14.2	15.5	10.5	8.8	9.6	10.1	8.6	9.2	9.7	8.0	8.8
22	17.6	15.5	16.5	10.0	8.6	9.3	9.9	8.1	8.9	9.6	8.4	9.0
23	19.3	17.0	18.0	11.5	9.9	10.6	10.5	9.2	9.8	12.2	9.6	10.4
24	20.0	18.4	19.1	14.2	11.5	12.9	9.9	8.4	9.1	13.5	12.2	13.0
25	19.3	17.2	18.1	14.5	12.8	13.7	8.4	6.8	7.7	12.2	9.6	10.3
26	17.4	15.2	16.1	14.4	11.9	13.1	6.8	5.6	6.3	10.4	9.6	10.1
27	15.2	13.0	13.8	15.5	14.4	15.0	6.6	5.4	5.9	11.1	9.9	10.6
28	13.3	11.2	12.2	15.9	14.9	15.4	7.1	5.4	6.1	12.5	11.0	11.7
29	13.4	10.8	12.1	16.1	15.8	15.9	6.9	5.4	6.3	14.3	12.5	13.5
30	13.3	10.9	12.1	15.8	13.6	14.7	5.8	4.4	5.1	16.0	14.3	15.1
31	13.7	11.0	12.4	---	---	---	4.9	3.8	4.3	16.4	15.3	15.8
MONTH	20.5	10.8	16.6	16.9	8.6	12.9	15.4	3.8	11.0	16.4	1.4	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	16.1	13.1	14.9	8.9	5.4	7.2	13.9	11.8	12.8	20.2	18.9	19.5
2	13.1	10.9	11.8	9.3	8.1	8.7	16.0	13.6	14.9	20.1	18.6	19.6
3	10.9	9.7	10.3	9.3	7.0	8.3	15.7	13.9	15.0	18.6	16.6	17.7
4	9.8	8.3	9.2	8.1	5.2	6.7	14.9	12.6	13.7	16.6	15.7	16.0
5	8.3	7.5	7.9	9.3	5.9	7.5	14.7	12.1	13.3	17.7	15.6	16.5
6	7.5	7.3	7.4	10.7	7.2	8.9	15.1	12.2	13.5	18.4	17.2	17.7
7	7.8	7.4	7.5	12.4	9.6	10.8	15.5	12.4	13.8	21.1	17.9	19.3
8	8.8	7.1	7.8	14.2	10.6	12.3	16.1	14.1	15.0	22.6	19.4	20.8
9	10.0	7.6	8.7	13.6	11.8	13.2	16.6	15.4	15.8	22.2	20.7	21.4
10	10.6	9.4	9.9	13.1	9.9	11.4	19.0	14.6	16.5	21.6	19.4	20.3
11	11.0	9.2	10	12.7	9.6	11.2	19.0	16.0	17.3	22.0	18.4	20.1
12	11.0	8.7	9.6	12.0	11.6	11.7	19.5	17.0	18.1	23.6	20.1	21.8
13	10.6	8.7	9.4	12.3	11.4	11.9	20.1	17.9	18.9	22.9	18.1	20.4
14	10.4	7.9	8.9	14.1	10.8	12.3	20.0	18.1	19.0	18.1	16.6	17.4
15	10.4	8.3	9.3	15.8	12.3	14.1	22.6	18.0	20.2	18.8	16.4	17.6
16	11.4	9.0	10.0	15.2	14.5	14.9	24.0	19.6	21.8	---	---	---
17	11.4	8.6	9.9	14.5	11.7	13.0	24.9	21.1	22.9	20.4	18.7	19.4
18	11.3	7.8	9.5	14.4	13.7	14.0	25.5	21.9	23.6	19.3	16.7	18.0
19	10.8	8.7	9.8	14.6	13.9	14.2	25.1	23.0	24.1	18.4	15.4	16.7
20	13.0	10.2	11.5	14.7	14.1	14.5	25.9	23.2	24.4	18.4	15.6	16.8
21	13.5	11.0	12.0	14.6	12.9	13.8	26.1	23.3	24.6	18.2	15.5	16.7
22	11.5	9.8	10.9	12.9	10.9	11.7	24.9	22.0	23.5	19.5	14.9	17.0
23	11.4	8.5	9.8	12.5	9.9	11.2	22.0	19.2	20.3	20.5	16.0	18.2
24	11.8	7.8	9.7	13.6	10.7	12.2	20.2	19.0	19.5	21.4	17.8	19.5
25	12.6	8.7	10.7	15.4	12.5	13.9	21.1	18.2	19.6	22.6	19.2	20.8
26	11.9	8.8	10.2	15.0	13.4	14.5	19.2	16.6	17.1	23.0	20.8	21.8
27	8.8	6.5	7.4	13.4	12.0	12.6	18.5	16.0	17.0	24.2	20.9	22.5
28	8.3	4.8	6.5	14.2	11.1	12.6	21.4	18.4	19.7	24.9	21.9	23.3
29	---	---	---	16.1	13.3	14.7	21.5	18.1	19.9	25.8	22.7	24.2
30	---	---	---	15.8	13.2	14.8	20.9	18.5	19.8	25.9	23.2	24.4
31	---	---	---	13.2	11.7	12.2	---	---	---	26.9	22.9	24.9
MONTH	16.1	4.8	9.7	16.1	5.2	12.0	26.1	11.8	18.5	26.9	14.9	19.7

CUMBERLAND RIVER BASIN

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	27.8	24.2	26.0	29.7	26.5	28.2	30.1	27.5	28.8	28.0	25.8	26.9
2	28.9	25.1	27.0	29.2	27.6	28.4	30.3	27.6	29.0	28.6	26.0	27.2
3	29.5	26.1	27.8	28.2	26.6	27.2	31.3	28.3	29.7	29.2	26.4	27.7
4	30.0	26.8	28.4	29.7	25.8	27.6	31.5	28.6	29.9	30.0	26.8	28.2
5	29.2	26.6	28.1	30.8	27.2	28.9	31.8	28.6	30.0	29.1	26.4	27.7
6	28.2	24.7	26.4	31.7	28.2	29.7	30.9	28.4	29.6	28.6	25.1	26.7
7	27.0	23.4	25.0	31.1	27.0	28.9	29.5	25.8	27.5	28.5	25.3	26.7
8	27.0	23.9	25.6	31.0	27.4	29.0	28.8	24.6	26.6	28.1	25.2	26.5
9	28.1	24.6	26.3	29.5	27.7	28.5	28.8	24.8	26.7	27.7	25.2	26.4
10	28.3	25.0	26.7	29.6	27.2	28.1	27.2	25.3	26.3	27.9	24.7	26.2
11	27.5	25.4	26.6	27.4	26.3	26.8	28.3	25.3	26.6	28.0	24.5	26.0
12	28.3	25.5	26.9	27.4	25.9	26.4	29.6	25.6	27.3	26.9	23.2	24.9
13	28.1	26.4	27.3	26.4	25.2	25.8	29.2	25.7	27.3	26.3	23.4	24.8
14	27.3	25.4	26.2	27.1	24.5	25.7	29.6	26.3	27.7	27.2	24.5	25.7
15	25.9	23.3	24.7	28.1	25.1	26.6	27.6	26.1	26.9	27.4	25.1	25.9
16	24.5	22.6	23.4	28.4	25.9	27.2	27.1	25.9	26.5	26.1	24.5	25.3
17	25.4	21.5	23.3	29.1	26.5	27.8	28.2	25.5	26.6	26.4	25.4	25.8
18	26.9	23.1	24.8	28.6	27.0	27.9	29.2	26.1	27.5	26.2	24.9	25.5
19	28.0	24.3	26.0	28.6	26.4	27.5	29.0	26.2	27.5	26.4	24.9	25.6
20	28.6	25.2	26.7	28.6	26.2	27.5	30.0	26.7	27.9	27.2	24.0	25.8
21	29.0	25.6	27.1	28.9	27.1	28.1	30.2	26.3	28.1	25.1	23.9	24.5
22	29.4	25.7	27.4	28.8	26.3	27.6	31.4	27.4	29.0	24.4	23.2	23.9
23	28.6	26.1	27.2	27.6	25.7	26.8	30.8	27.4	28.8	23.4	21.0	22.3
24	29.5	26.1	27.6	28.6	26.0	27.2	29.7	27.2	28.3	22.0	20.1	21.0
25	27.6	26.4	27.1	29.0	26.8	27.9	29.3	27.2	28.0	21.1	20.2	20.5
26	29.2	25.7	27.3	29.2	27.2	28.2	27.5	26.3	26.9	20.6	19.5	20.2
27	28.6	26.4	27.3	28.8	27.4	28.3	27.7	25.0	26.2	20.7	19.5	20.3
28	29.3	25.9	27.4	29.7	27.1	28.4	27.3	25.0	26.1	21.1	19.7	20.3
29	29.6	26.5	27.9	29.2	27.7	28.6	27.0	24.8	25.9	21.8	19.7	20.5
30	29.7	26.6	28.0	28.6	27.2	27.9	27.2	25.1	26.2	22.1	20.4	21.2
31	---	---	---	29.3	26.6	28.0	27.7	25.5	26.7	---	---	---
MONTH	30.0	21.5	26.6	31.7	24.5	27.8	31.8	24.6	27.6	30.0	19.5	24.7

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.5	7.4	9.2	13.3	8.5	10.9	10.3	7.6	9.5	16.6	13.2	14.5
2	11.1	7.2	9.0	11.7	7.5	9.8	11.1	9.7	10.4	17.0	13.4	14.9
3	10.1	7.0	8.0	10.2	6.7	8.6	11.1	9.9	10.5	16.8	13.5	14.8
4	10.5	7.5	9.4	10.1	6.8	8.5	11.6	9.1	10.3	17.4	14.0	15.3
5	10.0	7.5	8.8	10.1	6.7	8.6	---	---	---	17.7	13.8	15.4
6	9.4	7.4	8.1	10.1	7.5	8.9	---	---	---	14.9	13.0	13.9
7	11.8	7.5	9.0	10.2	7.9	9.1	---	---	---	17.3	12.3	14.3
8	12.7	7.8	9.6	10.2	8.1	9.4	---	---	---	18.1	12.8	14.8
9	12.9	8.0	10.1	9.9	8.0	8.9	---	---	---	18.4	12.6	14.8
10	12.8	7.7	10	10.1	8.4	9.3	10.8	10.2	10.4	17.3	12.0	13.9
11	10.9	5.9	9.0	10.4	8.3	9.4	11.0	10.4	10.7	18.7	10.8	13.8
12	9.1	3.4	6.9	10.6	8.4	9.5	10.9	9.9	10.5	17.9	10.8	13.4
13	9.6	4.6	6.4	10.8	9.2	10.2	10.0	8.6	9.6	18.3	11.1	13.7
14	8.5	4.4	7.3	10.8	9.2	10.1	10.1	3.7	8.0	16.4	11.0	13.2
15	9.0	8.3	8.6	11.0	9.3	10.3	10.4	10.0	10.1	17.8	11.0	13.6
16	9.5	8.5	8.9	10.9	9.7	10.3	10.5	9.9	10.2	18.0	11.5	14.1
17	10.7	8.9	9.6	10.6	9.5	10.1	9.9	9.5	9.7	17.1	11.4	13.8
18	11.4	9.4	10.1	10.3	9.2	9.8	10.8	9.6	10.2	17.6	11.4	13.8
19	11.8	9.4	10.2	9.9	8.8	9.3	11.2	10.2	10.6	12.5	11.2	11.9
20	12.3	9.3	10.3	10.1	8.3	9.1	12.2	10.5	11.2	12.4	11.6	12.1
21	12.8	9.0	10.3	11.1	9.7	10.4	12.8	11.2	11.8	12.0	11.3	11.6
22	12.8	8.6	10.2	11.6	10.5	11.0	13.1	11.3	11.9	12.7	11.2	11.7
23	13.0	8.1	10	11.1	9.4	10.3	11.9	11.0	11.3	11.2	9.7	10.6
24	12.2	7.3	9.1	9.5	7.4	8.2	11.6	11.3	11.4	9.8	9.4	9.6
25	11.4	7.0	8.5	9.5	7.7	8.4	12.5	11.5	11.9	11.4	9.8	10.9
26	13.0	6.9	9.3	10.7	7.6	8.9	13.7	12.0	12.6	11.6	11.2	11.4
27	14.4	8.4	10.8	8.8	7.8	8.2	14.2	12.3	13.0	11.7	11.0	11.3
28	15.4	9.6	11.9	9.5	7.6	8.2	14.5	12.2	13.0	11.4	10.6	11.0
29	16.0	9.9	12.5	8.4	7.6	8.0	14.6	12.0	12.9	10.7	10.0	10.4
30	15.0	9.9	12.2	9.8	6.1	8.5	15.5	12.4	13.6	10.9	9.6	10.1
31	14.3	8.9	11.5	---	---	---	16.0	12.8	14.1	10.9	9.4	9.9
MONTH	16.0	3.4	9.5	13.3	6.1	9.3	16.0	3.7	11.1	18.7	9.4	12.9

03428200 WEST FORK STONES RIVER AT MURFREESBORO, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.5	9.4	9.9	17.4	12.0	14.2	11.3	10.5	11.0	8.6	7.5	8.0
2	12.3	10.5	11.3	14.7	11.1	12.6	11.6	9.9	10.7	8.2	7.4	7.8
3	11.9	11.2	11.5	16.0	10.4	12.8	12.4	9.9	10.8	9.1	8.0	8.6
4	13.8	11.4	12.4	16.6	11.7	13.8	14.1	10.5	11.8	8.5	7.4	8.1
5	14.2	12.1	12.9	16.5	11.9	13.8	15.6	10.7	12.5	---	---	---
6	13.4	12.2	12.7	16.2	11.4	13.4	17.3	10.6	13.0	---	---	---
7	13.5	12.2	12.7	15.1	10.7	12.5	18.1	10.4	13.4	---	---	---
8	14.9	12.4	13.3	14.9	10.0	11.9	16.0	9.9	12.5	---	---	---
9	15.3	11.8	13.1	---	---	---	15.9	9.4	12.0	9.5	7.4	8.2
10	14.2	11.5	12.3	14.7	7.4	11.0	19.0	9.5	13.4	9.3	7.4	8.2
11	17.6	11.4	13.6	14.7	9.6	11.8	16.8	8.9	12.4	10.9	7.9	9.0
12	17.5	11.7	14.0	11.2	8.8	10.1	16.2	8.4	12.0	11.5	7.7	9.1
13	14.8	10.8	12.0	11.5	7.8	10.1	14.6	8.0	11.0	15.4	7.3	8.4
14	---	---	---	13.0	9.6	11.0	14.0	8.0	10.5	15.4	9.2	9.9
15	---	---	---	13.0	8.9	10.5	14.7	7.9	10.8	10.8	9.4	10
16	---	---	---	10.3	8.3	9.1	13.6	7.1	10	10.8	9.3	10.2
17	---	---	---	10.4	8.7	9.7	12.8	6.3	8.9	10.9	8.6	9.5
18	---	---	---	10.1	9.1	9.7	11.6	6.0	8.2	11.0	8.6	9.6
19	---	---	---	10.3	10.0	10.2	9.2	5.5	7.0	13.2	9.7	11.0
20	16.0	9.9	12.5	10.3	10.0	10.1	9.1	4.4	6.5	13.6	9.8	11.3
21	16.0	9.6	12.1	10.8	10.3	10.5	9.4	5.2	6.8	14.4	9.6	11.6
22	15.4	9.7	11.8	12.1	10.5	11.3	9.0	4.0	6.4	16.0	9.8	12.1
23	17.4	10.2	13.0	12.7	11.0	11.7	10.0	3.9	7.6	16.1	9.3	12.0
24	17.6	10.6	13.3	13.0	10.5	11.6	8.6	6.2	7.3	15.2	8.8	11.5
25	17.0	10.4	13.0	13.6	9.9	11.4	11.1	6.8	8.7	14.0	8.3	10.7
26	14.0	9.7	11.4	10.6	9.7	10.2	10.4	8.0	9.1	12.4	7.6	9.6
27	16.4	10.3	12.9	12.7	10.6	11.3	11.2	8.4	9.7	12.6	7.4	9.4
28	17.4	11.9	14.1	14.4	10.1	11.9	10.2	7.5	8.9	12.5	6.8	9.2
29	---	---	---	14.4	9.3	11.3	10.3	6.9	8.2	12.6	6.8	9.2
30	---	---	---	10.6	9.0	9.8	9.2	6.4	7.7	11.0	6.3	8.1
31	---	---	---	11.0	10.6	10.8	---	---	---	11.0	5.8	8.0
MONTH	17.6	9.4	12.5	17.4	7.4	11.3	19.0	3.9	10.0	16.1	5.8	9.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.6	5.5	7.6	8.5	3.2	5.6	10.6	5.5	8.1	---	---	---
2	9.9	5.0	7.2	---	---	---	10.8	5.7	8.3	---	---	---
3	9.2	4.7	6.8	---	---	---	10.3	6.2	8.1	---	---	---
4	8.3	4.5	6.3	8.4	5.2	6.8	9.7	5.1	7.3	9.0	6.0	7.3
5	7.1	4.0	5.5	8.9	4.8	6.9	9.3	5.1	7.1	8.3	5.8	6.9
6	6.2	4.0	5.2	9.0	3.5	6.8	8.7	4.6	6.5	8.3	5.3	6.6
7	7.5	3.8	5.4	9.7	5.3	7.1	8.8	4.6	6.3	8.6	5.7	6.9
8	7.5	3.9	5.6	9.8	5.5	7.3	9.7	4.3	6.5	9.0	5.8	7.3
9	8.6	4.1	6.0	9.2	5.1	6.8	9.0	3.5	5.5	8.7	5.9	7.2
10	6.9	3.5	5.3	7.9	5.1	6.2	7.6	4.7	6.0	9.2	5.9	7.4
11	8.5	4.1	6.1	7.4	4.9	6.0	9.1	3.8	6.6	9.4	5.4	7.3
12	8.3	4.4	6.2	7.6	6.0	6.5	10.0	5.5	7.4	8.8	5.7	7.0
13	7.3	3.8	5.4	8.7	5.6	6.9	9.3	3.3	6.2	8.4	5.5	6.9
14	7.4	3.6	5.4	9.3	6.0	7.4	8.8	4.7	6.2	7.6	3.6	5.7
15	6.8	4.2	5.7	10.5	5.7	7.9	7.4	4.1	5.6	---	---	---
16	6.8	3.1	5.3	10.8	5.9	8.2	6.6	4.1	5.4	7.6	3.9	5.9
17	8.1	4.5	6.5	11.4	6.1	8.6	7.2	4.0	5.4	7.2	5.2	6.2
18	8.0	4.8	6.4	11.2	6.5	8.9	8.2	4.2	6.2	6.6	4.9	5.7
19	8.2	5.2	6.6	12.6	6.5	9.3	7.5	4.2	5.5	6.4	4.4	5.5
20	8.2	5.2	6.5	11.2	6.0	8.7	8.2	3.9	5.5	7.2	4.6	5.8
21	8.2	5.0	6.4	11.2	6.2	8.7	7.5	3.7	5.2	7.7	5.5	6.6
22	8.5	5.3	6.6	9.3	7.9	7.9	6.6	3.0	4.8	7.8	6.4	6.9
23	8.0	4.7	6.3	9.8	4.6	7.2	8.4	4.6	6.0	8.2	5.5	6.7
24	7.8	4.6	6.2	11.9	5.1	8.1	8.0	3.6	6.1	8.4	6.0	7.2
25	5.8	4.2	4.9	11.1	5.3	8.2	7.7	5.1	6.3	7.3	6.0	6.6
26	7.7	4.0	5.6	11.7	4.9	8.3	---	---	---	8.9	6.1	7.6
27	7.6	4.5	5.7	10.2	5.6	8.3	---	---	---	9.0	8.2	8.7
28	8.0	4.6	5.8	10.7	5.3	7.8	---	---	---	9.2	8.7	9.0
29	7.5	4.2	5.7	9.3	4.9	7.3	---	---	---	9.5	8.6	8.9
30	9.3	4.2	6.2	9.6	4.9	7.6	---	---	---	9.5	8.3	8.8
31	---	---	---	10.2	5.5	8.0	---	---	---	---	---	---
MONTH	10.6	3.1	6.0	12.6	3.2	7.6	10.8	3.0	6.3	9.5	3.6	7.0

CUMBERLAND RIVER BASIN

03430147 STONERS CREEK NEAR HERMITAGE, TN

LOCATION.--Lat 36°11'40", long 86°36'28", Davidson County, Hydrologic Unit 05130203, on downstream end of pier at center of culvert under Andrew Jackson Parkway, 0.8 mi southwest of Hermitage.

DRAINAGE AREA.--20.6 mi².

PERIOD OF RECORD.--January 1992 to current year.

GAGE.--Data logger. Datum of gage is 411.70 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1200	1,340	7.72	Mar 20	0845	807	6.19
Jan 24	0845	1,320	7.66	Mar 31	1115	829	6.26
Mar 17	2245	*3,450	*11.66	May 13	0730	927	6.57

Minimum daily discharge, 0.64 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.69	2.2	70	7.9	106	9.7	146	238	7.0	1.8	3.8	5.9
2	0.67	2.0	43	7.3	59	9.8	83	63	6.0	1.4	2.9	2.6
3	0.66	2.7	29	6.8	52	10	56	42	4.1	9.0	2.4	1.8
4	0.63	1.8	21	6.4	47	8.9	42	70	3.5	16	2.0	1.4
5	11	1.7	16	5.9	37	8.3	34	47	3.4	4.0	1.7	1.2
6	26	1.6	14	7.2	34	7.9	28	35	36	2.6	1.5	1.1
7	4.0	1.5	14	6.7	55	7.4	23	31	8.4	1.9	1.3	1.0
8	2.4	1.5	138	5.9	59	6.9	20	26	5.3	1.5	1.1	1.1
9	1.7	1.3	72	5.6	48	15	18	29	4.2	46	0.99	1.3
10	1.4	1.4	46	6.8	44	14	15	22	3.4	67	0.95	1.4
11	1.6	1.4	36	16	37	11	14	20	2.9	21	0.91	1.1
12	13	1.4	34	12	32	15	16	15	2.5	17	0.89	1.0
13	12	1.4	206	10	26	17	14	343	4.5	138	0.89	1.1
14	108	1.4	162	9.1	22	14	13	103	2.8	36	2.4	1.4
15	21	1.4	80	7.9	20	13	11	58	2.4	16	5.0	6.7
16	10	1.3	53	7.1	18	37	10	40	2.1	9.3	48	3.1
17	6.1	1.3	54	7.0	16	985	9.2	75	2.0	7.1	13	3.2
18	4.4	1.3	45	12	14	687	9.2	97	1.7	6.2	4.6	3.6
19	5.7	1.3	35	106	13	187	8.1	49	1.5	4.9	3.3	3.9
20	12	2.0	29	59	23	367	7.1	35	1.4	4.1	3.5	13
21	11	1.4	25	41	16	148	6.4	27	1.2	3.4	2.5	20
22	12	1.5	20	33	13	86	9.0	21	1.1	3.1	2.0	4.8
23	15	1.5	33	320	12	62	6.4	18	1.3	68	1.7	3.0
24	27	9.3	25	637	11	47	136	15	1.4	27	1.5	2.3
25	21	4.6	20	189	9.9	37	64	12	24	16	7.0	2.1
26	5.3	3.1	17	96	17	152	31	11	3.2	11	2.8	133
27	3.4	11	15	63	12	71	22	9.6	3.2	5.3	1.8	219
28	3.9	11	13	47	10	50	18	8.4	5.3	5.3	1.5	44
29	2.4	523	11	38	---	40	13	7.3	3.0	4.5	1.3	22
30	2.3	223	9.6	46	---	37	13	11	2.2	7.1	8.3	14
31	2.2	---	8.8	41	---	388	---	13	---	6.4	9.6	---
TOTAL	348.45	821.3	1394.4	1863.6	862.9	3548.9	895.4	1591.3	151.0	567.9	141.13	521.1
MEAN	11.24	27.38	44.98	60.12	30.82	114.5	29.85	51.33	5.033	18.32	4.553	17.37
MAX	108	523	206	637	106	985	146	343	36	138	48	219
MIN	0.63	1.3	8.8	5.6	9.9	6.9	6.4	7.3	1.1	1.4	0.89	1.0
CFSM	0.55	1.33	2.18	2.92	1.50	5.56	1.45	2.49	0.24	0.89	0.22	0.84
IN.	0.63	1.48	2.52	3.37	1.56	6.41	1.62	2.87	0.27	1.03	0.25	0.94

03430147 STONERS CREEK NEAR HERMITAGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	8.431	22.41	36.90	52.30	49.47	71.09	37.09	29.22	25.41	12.44	4.184	5.699
MAX	43.3	53.1	75.6	108	119	149	112	83.6	101	62.0	13.3	17.4
(WY)	1996	1996	1997	1999	1994	1997	1994	1995	1998	1992	1994	2002
MIN	0.42	1.12	11.4	21.8	27.5	31.1	10.7	5.24	3.24	1.37	0.79	0.28
(WY)	2001	1999	2000	2000	1995	1998	1992	1992	2000	2000	1993	1998

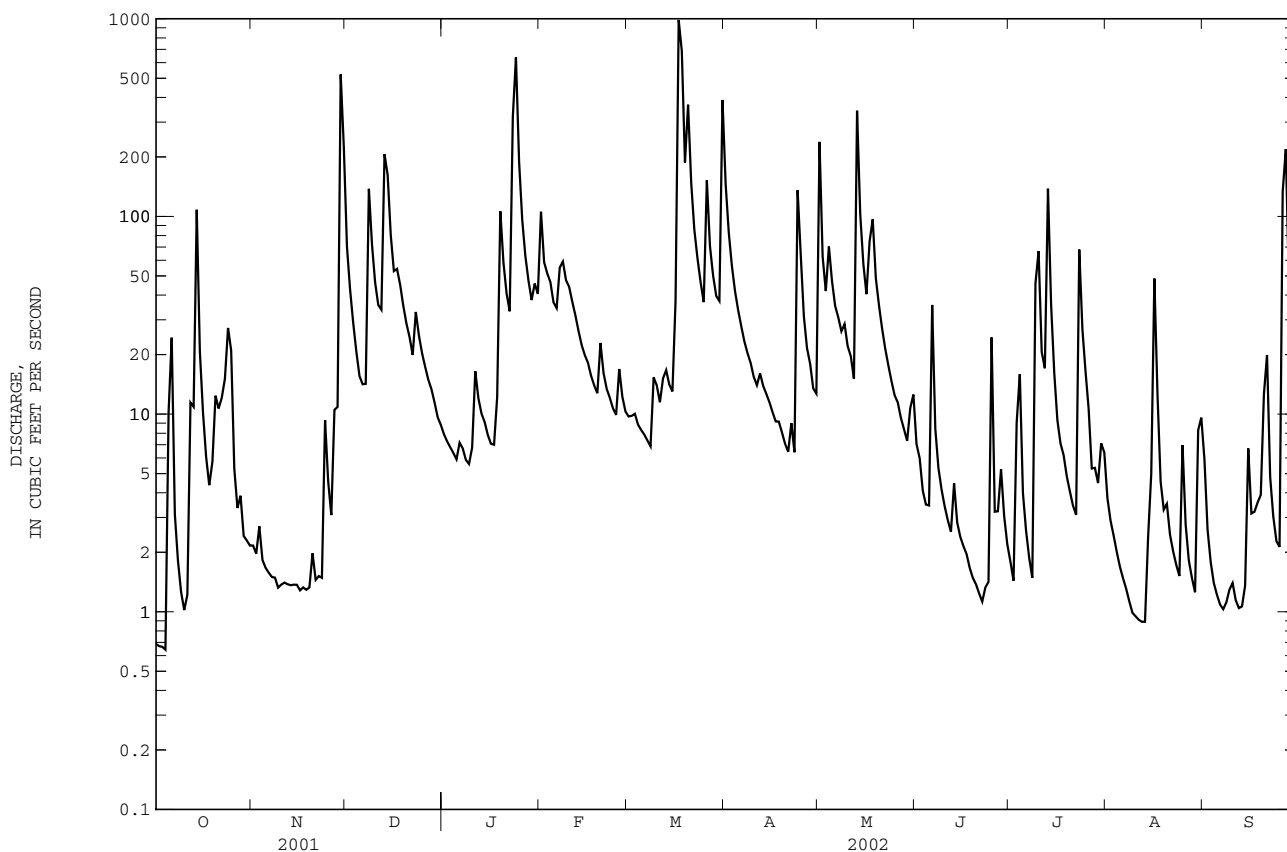
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1992 - 2002

ANNUAL TOTAL	8609.37	12707.38	
ANNUAL MEAN	23.59	34.81	29.64
HIGHEST ANNUAL MEAN			44.2
LOWEST ANNUAL MEAN			15.3
HIGHEST DAILY MEAN	785	Feb 16	1260
LOWEST DAILY MEAN	0.38	Sep 13	0.04
ANNUAL SEVEN-DAY MINIMUM	0.42	Sep 12	0.05
MAXIMUM PEAK FLOW		3450	a4220
MAXIMUM PEAK STAGE		11.66	12.60
INSTANTANEOUS LOW FLOW			0.09
ANNUAL RUNOFF (CFSM)	1.15	1.69	1.44
ANNUAL RUNOFF (INCHES)	15.55	22.95	19.55
10 PERCENT EXCEEDS	44	69	59
50 PERCENT EXCEEDS	7.2	11	10
90 PERCENT EXCEEDS	0.98	1.4	0.89

a From rating curve extended above 500 ft³/s on basis of contracted-opening measurement of peak flow.

CUMBERLAND RIVER BASIN

03430550 MILL CREEK NEAR NOLENSVILLE, TN

LOCATION.--Lat 36°00'33", long 86°42'06", Davidson County, Hydrologic Unit 05130202, near left bank on downstream side of bridge on US Highway 31A, 800 ft upstream from Holt Creek, 0.6 mi upstream from Owl Creek, 4.6 mi northwest of Nolensville, and at mile 19.6.

DRAINAGE AREA.--40.5 mi².

PERIOD OF RECORD.--March 1992 to current year.

REVISED RECORD.--WRD TN-94-1: 1992 (M).

GAGE.--Data logger. Datum of gage is 527.74 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1215	4,070	11.40	Mar 17	0645	5,050	12.36
Nov 29	2215	2,570	9.67	Mar 17	2130	2,480	9.55
Jan 24	0830	*5,780	*13.02	May 13	0930	3,040	10.25

Minimum daily discharge, 0.11 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.89	2.8	116	11	97	20	292	96	6.7	11	5.4	0.79
2	0.93	2.8	59	10	70	20	169	39	5.2	5.9	4.6	0.61
3	0.83	2.7	40	9.9	61	19	110	43	4.4	7.6	3.4	0.65
4	0.82	2.8	27	9.4	53	17	79	96	3.9	6.8	3.2	0.66
5	1.4	3.0	18	9.3	45	16	62	61	7.9	5.6	3.0	0.59
6	2.7	2.6	15	11	46	15	50	42	6.8	4.5	2.9	1.2
7	2.1	2.7	18	10	64	14	42	33	6.0	3.4	2.8	0.35
8	2.0	2.5	635	9.4	67	14	37	26	5.2	3.2	2.5	0.14
9	2.2	2.2	209	10	58	21	33	24	4.1	8.7	2.4	0.11
10	2.0	2.2	107	10	56	22	29	25	3.8	67	2.5	0.22
11	2.2	2.2	73	14	49	20	27	26	2.9	24	2.5	0.29
12	5.5	2.2	58	14	43	34	26	20	2.7	51	1.2	0.25
13	5.0	2.3	218	13	35	49	24	627	2.9	21	0.60	0.21
14	75	2.9	293	12	31	41	22	194	2.7	10	0.72	0.42
15	19	3.3	140	12	29	35	20	97	2.3	7.1	1.3	1.7
16	10	3.6	88	11	28	90	18	64	2.0	5.6	15	2.6
17	7.8	3.6	89	11	24	1920	17	55	2.0	4.8	5.1	2.6
18	6.1	3.7	66	15	22	910	15	53	1.7	4.4	2.8	8.3
19	4.9	4.2	49	206	20	308	14	38	1.4	4.8	2.1	4.4
20	4.5	5.8	35	119	36	543	13	31	1.1	5.1	1.7	13
21	4.2	6.4	28	73	30	258	12	26	0.83	6.2	1.5	6.0
22	3.7	7.3	23	54	26	159	11	22	0.62	7.8	1.3	2.4
23	4.5	8.0	34	935	24	113	10	19	0.50	6.8	1.1	1.2
24	18	9.5	29	1950	22	84	30	16	0.50	7.1	0.97	0.66
25	17	8.5	23	399	20	66	22	13	1.1	6.3	0.99	0.81
26	9.1	6.5	20	207	27	211	15	13	1.4	5.4	0.82	134
27	6.3	10	18	131	24	120	14	11	1.5	5.3	0.75	250
28	5.0	19	16	94	22	85	14	10	1.6	4.6	0.66	54
29	4.3	1180	14	72	---	67	12	9.7	1.1	3.9	0.55	33
30	3.9	403	12	61	---	85	11	9.0	35	4.8	0.50	21
31	3.4	---	11	51	---	849	---	8.8	---	5.8	0.63	---
TOTAL	235.27	1718.3	2581	4554.0	1129	6225	1250	1847.5	119.85	325.5	75.49	542.16
MEAN	7.589	57.28	83.26	146.9	40.32	200.8	41.67	59.60	3.995	10.50	2.435	18.07
MAX	75	1180	635	1950	97	1920	292	627	35	67	15	250
MIN	0.82	2.2	11	9.3	20	14	10	8.8	0.50	3.2	0.50	0.11
CFSM	0.19	1.41	2.05	3.62	0.99	4.95	1.03	1.47	0.10	0.26	0.06	0.45
IN.	0.22	1.58	2.37	4.18	1.04	5.71	1.15	1.70	0.11	0.30	0.07	0.50

CUMBERLAND RIVER BASIN

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03430550 MILL CREEK NEAR NOLENSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	21.50	43.10	79.36	122.3	118.3	178.1	75.81	68.60	45.37	17.84	8.264	6.884
MAX	146	122	159	225	263	372	209	190	210	58.8	35.0	18.1
(WY)	1996	1996	1997	1999	1994	1997	1994	1995	1998	1992	1995	2002
MIN	0.39	1.67	28.4	39.2	40.3	81.9	20.3	8.40	4.00	2.35	1.03	0.85
(WY)	2001	1999	2000	2000	2002	1998	1992	1992	2002	2000	2000	2000

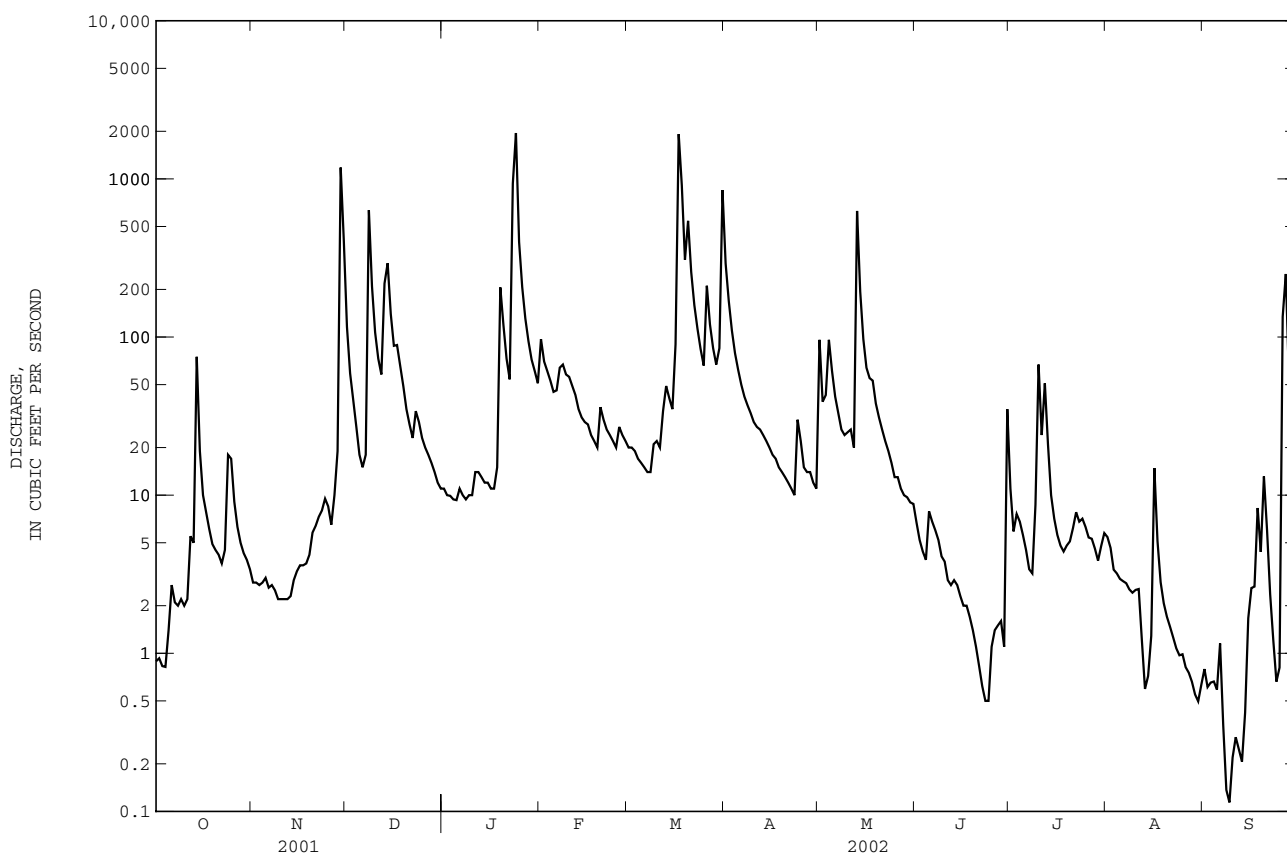
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1992 - 2002

ANNUAL TOTAL	19283.30	20603.07	
ANNUAL MEAN	52.83	56.45	66.30
HIGHEST ANNUAL MEAN			104
LOWEST ANNUAL MEAN			41.3
HIGHEST DAILY MEAN	2420	1950	4070
LOWEST DAILY MEAN	0.50	0.11	0.08
ANNUAL SEVEN-DAY MINIMUM	0.85	0.22	0.10
MAXIMUM PEAK FLOW		5780	13000
MAXIMUM PEAK STAGE		13.02	17.88
INSTANTANEOUS LOW FLOW			0.14
ANNUAL RUNOFF (CFSM)	1.30	1.39	1.64
ANNUAL RUNOFF (INCHES)	17.70	18.91	22.23
10 PERCENT EXCEEDS	108	96	126
50 PERCENT EXCEEDS	10	11	18
90 PERCENT EXCEEDS	1.6	1.1	1.2



CUMBERLAND RIVER BASIN

03431060 MILL CREEK AT THOMPSON LANE NEAR WOODBINE, TN

LOCATION.--Lat 36°07'04", long 86°43'08", Davidson County, Hydrologic Unit 05130202, at bridge on Thompson Lane, 1.4 miles west of Arlington Church, 1.5 miles upstream from U.S. Highway 41 and 70S, and 1.6 miles downstream from Sevenmile Creek, and at mile 6.3.

DRAINAGE AREA.--93.4 mi².

PERIOD OF RECORD.--Crest-stage gage July 1964 to September 1996. October 1996 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 432.55 ft above NGVD of 1929. July 1964 to September 1996, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good, except Oct. 31 to Nov. 24, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1630	4,740	9.99	Mar 17	0900	5,650	10.80
Jan 24	1215	6,930	11.82	Mar 17	2115	*7,170	*12.00

Minimum daily discharge, 1.5 ft³/s, Oct. 3, 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	17	263	30	247	53	777	376	28	110	16	5.9
2	1.6	15	139	30	167	52	415	134	25	32	18	6.2
3	1.5	14	93	29	152	51	265	122	22	26	19	6.8
4	1.5	8.9	70	27	136	47	193	218	21	44	18	6.3
5	38	5.4	56	26	115	44	154	153	85	23	16	7.7
6	57	6.0	49	29	115	43	129	111	42	18	15	12
7	10	6.3	51	29	157	42	115	89	29	16	14	19
8	6.3	6.3	1090	27	162	41	100	72	24	21	12	6.3
9	5.0	5.8	400	26	138	76	91	67	20	71	11	7.3
10	7.7	7.5	198	27	136	62	81	71	19	50	9.9	8.2
11	11	6.6	143	50	123	53	74	66	19	83	9.9	8.1
12	49	5.7	122	35	109	74	81	54	17	553	10	7.9
13	38	5.8	397	32	95	94	69	1110	19	186	11	7.9
14	322	6.3	579	30	85	81	61	389	17	75	22	9.9
15	68	6.2	267	28	78	72	57	193	17	51	31	42
16	40	6.1	165	28	73	263	53	134	16	40	180	29
17	31	6.8	164	28	67	3880	49	175	15	31	35	13
18	25	5.8	135	41	61	2590	44	151	15	35	20	26
19	21	5.9	106	391	58	875	41	104	14	40	15	19
20	18	8.3	83	212	109	1640	38	86	13	24	14	67
21	14	6.1	69	135	83	733	36	72	12	20	12	57
22	14	5.8	60	104	68	407	44	61	12	21	9.9	22
23	14	6.0	85	1800	62	278	33	54	12	23	8.8	14
24	54	92	70	3680	58	209	281	48	12	23	8.3	12
25	100	70	59	1110	54	163	111	43	56	19	7.2	13
26	36	49	53	493	83	546	67	43	20	17	8.3	632
27	26	94	49	303	65	275	56	39	19	16	7.6	871
28	22	89	44	218	57	196	75	37	27	15	6.5	142
29	20	2360	40	173	---	160	54	36	17	15	6.6	66
30	17	1270	35	156	---	176	44	35	132	20	6.4	43
31	16	---	32	131	---	1980	---	29	---	25	6.8	---
TOTAL	1087.4	4197.6	5166	9458	2913	15256	3688	4372	796	1743	585.2	2187.5
MEAN	35.08	139.9	166.6	305.1	104.0	492.1	122.9	141.0	26.53	56.23	18.88	72.92
MAX	322	2360	1090	3680	247	3880	777	1110	132	553	180	871
MIN	1.5	5.4	32	26	54	41	33	29	12	15	6.4	5.9
CFSM	0.38	1.50	1.78	3.27	1.11	5.27	1.32	1.51	0.28	0.60	0.20	0.78
IN.	0.43	1.67	2.06	3.77	1.16	6.08	1.47	1.74	0.32	0.69	0.23	0.87

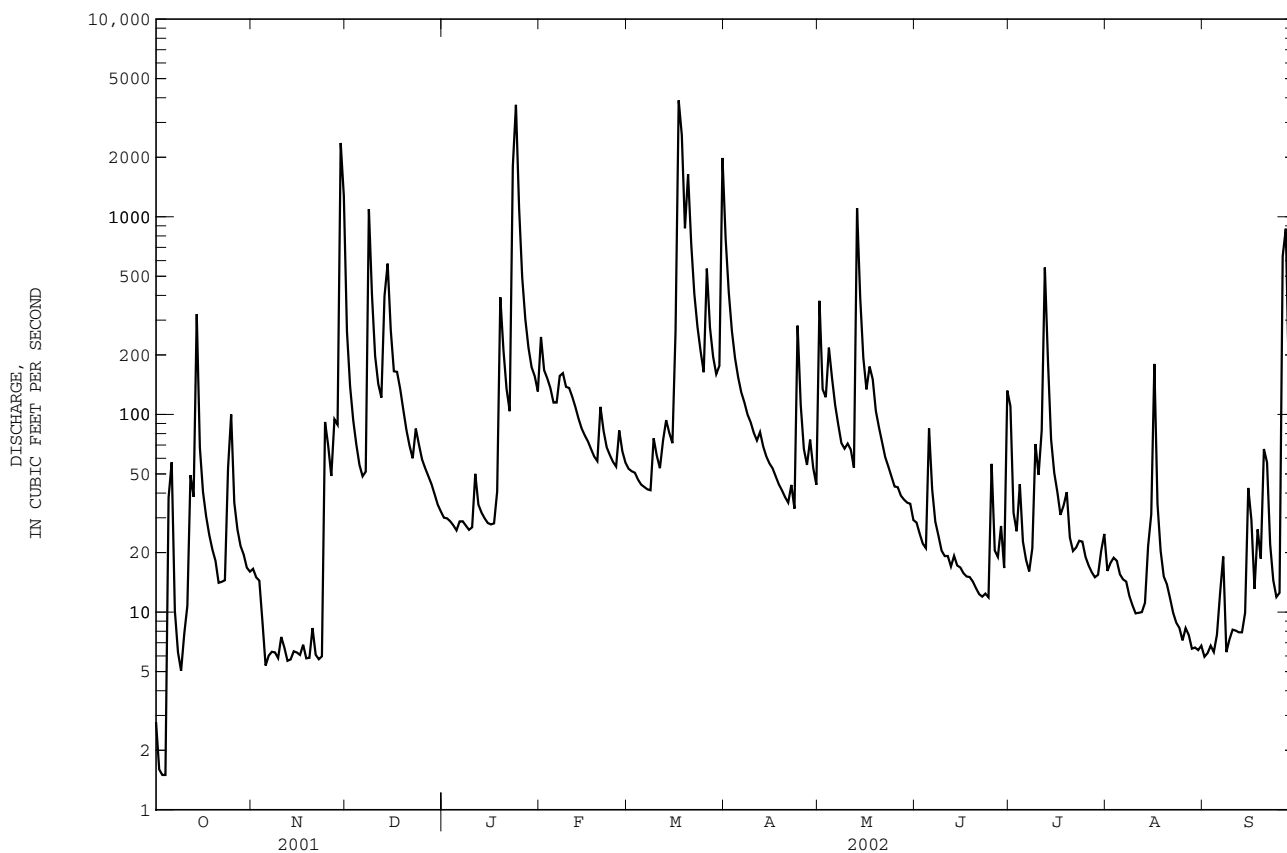
03431060 MILL CREEK AT THOMPSON LANE NEAR WOODBINE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	23.86	89.44	172.3	271.0	259.4	345.1	145.7	151.2	173.4	35.46	16.29	26.14
MAX	59.2	167	349	521	577	771	298	336	586	56.2	25.3	72.9
(WY)	1997	1997	1997	1999	2001	1997	2000	2000	1998	2002	1997	2002
MIN	1.89	13.4	71.5	103	104	162	52.9	59.8	22.5	8.14	6.99	4.09
(WY)	2001	1999	2000	2000	2002	2001	1997	2001	2000	2000	2000	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1997 - 2002	
ANNUAL TOTAL	42682.7		51449.7		141.9	
ANNUAL MEAN	116.9		141.0		207	
HIGHEST ANNUAL MEAN					106	
LOWEST ANNUAL MEAN					106	
HIGHEST DAILY MEAN	4890	Feb 16	3880	Mar 17	6420	Mar 3 1997
LOWEST DAILY MEAN	1.5	Oct 3	1.5	Oct 3	0.75	Sep 21 2000
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 12	6.1	Nov 12	0.95	Sep 16 2000
MAXIMUM PEAK FLOW			7170	Mar 17	26200	May 4 1979
MAXIMUM PEAK STAGE			12.00	Mar 17	20.63	May 4 1979
INSTANTANEOUS LOW FLOW					0.20	Sep 23 2000
ANNUAL RUNOFF (CFSM)	1.25		1.51		1.52	
ANNUAL RUNOFF (INCHES)	17.00		20.49		20.64	
10 PERCENT EXCEEDS	205		253		267	
50 PERCENT EXCEEDS	34		43		44	
90 PERCENT EXCEEDS	3.8		7.7		3.8	

a Also occurred Oct. 4.



CUMBERLAND RIVER BASIN

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°09'46", long 86°43'31", Davidson County, Hydrologic Unit 05130202, on right bank 0.8 mi downstream from Mill Creek, upstream of Omohundro Filtration Plant, and at mile 193.7.

DRAINAGE AREA.--12,819 mi².

PERIOD OF RECORD.--October 1996 to September 1999, October 2000 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1996 to September 1999, October 2000 to current year.

pH: October 1996 to September 1999, October 2000 to current year.

WATER TEMPERATURE: October 1996 to September 1999, October 2000 to current year.

DISSOLVED OXYGEN: October 1996 to September 1999, October 2000 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1996.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Dissolved oxygen and specific conductance record poor May 28 to Sept. 30, equipment problems. Records for water temperature, specific conductance, pH and dissolved oxygen are poor for the year because of fluctuation in instrument readings. No max/min for year because of problems with instrumentation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 282 microsiemens, Jan. 8, 2002; minimum, 166 microsiemens, June 4, 1998.

pH: Maximum, 9.1 units, Feb. 11, 12, 13, 2001; minimum, 6.9 units, July 30, 1997.

WATER TEMPERATURE: Maximum, 27.3°C, July 31, 1997; minimum, 3.0°C, Jan. 5, 2001.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Jan. 18, 2002; minimum, 3.7 mg/L, Nov. 4, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: See REMARKS.

pH: See REMARKS.

WATER TEMPERATURE: See REMARKS.

DISSOLVED OXYGEN: See REMARKS.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	213	207	210	234	221	228	252	239	243	272	262	266
2	256	211	222	236	222	231	243	239	241	272	259	264
3	233	208	217	243	222	233	243	240	242	272	261	266
4	233	208	215	227	224	225	247	241	244	271	260	265
5	230	206	214	229	226	227	247	242	245	271	261	265
6	217	208	214	243	228	236	248	233	242	261	258	260
7	219	209	215	240	228	235	248	233	245	260	256	259
8	238	211	217	242	227	234	249	233	243	282	257	265
9	238	213	222	241	225	234	255	233	245	267	253	258
10	226	210	216	238	220	232	246	229	233	259	248	252
11	242	211	220	232	221	224	246	230	238	264	239	248
12	235	212	218	226	221	222	247	235	242	245	238	240
13	236	---	218	236	220	230	250	241	245	240	231	235
14	220	---	---	240	221	229	251	242	247	234	228	231
15	238	213	223	235	221	227	250	236	241	243	227	232
16	235	212	222	235	218	225	249	235	241	233	222	227
17	241	223	232	234	214	223	252	236	245	231	219	225
18	249	226	239	229	214	218	262	247	252	233	220	224
19	244	219	232	225	216	219	262	251	258	223	215	219
20	237	217	226	246	220	231	260	247	254	249	213	225
21	239	214	224	245	222	233	261	251	257	252	213	222
22	245	215	224	243	224	234	264	254	261	245	217	227
23	239	221	230	239	---	237	263	248	256	237	216	230
24	243	212	226	---	---	---	265	251	258	239	216	223
25	232	210	223	---	---	---	266	250	259	253	239	249
26	235	215	223	238	221	---	258	248	252	251	231	239
27	234	215	226	232	221	225	263	251	256	253	242	249
28	227	214	221	240	220	230	265	254	259	252	243	247
29	228	212	217	240	221	229	268	258	263	252	244	247
30	240	217	230	244	224	235	274	261	267	245	239	241
31	237	227	232	---	---	---	276	264	269	242	227	236
MONTH	256	206	222	246	214	229	276	229	250	282	213	243

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	234	225	228	216	213	214	210	208	209	---	---	---
2	230	223	228	216	213	215	210	206	208	251	218	232
3	224	218	221	219	215	217	212	206	208	251	227	237
4	223	216	219	226	215	221	214	212	213	242	229	239
5	218	206	215	251	223	229	214	207	210	230	221	225
6	217	202	211	238	220	228	207	199	202	244	213	223
7	220	206	213	225	216	218	206	200	203	242	219	228
8	224	212	218	225	210	216	207	203	205	235	216	224
9	226	214	218	211	209	210	210	204	206	239	213	222
10	220	214	215	217	210	213	211	204	207	231	218	223
11	244	214	222	218	210	216	207	197	201	227	210	215
12	228	215	220	219	208	214	204	195	198	224	208	214
13	231	216	221	215	211	213	202	196	198	218	205	209
14	233	220	225	216	213	215	199	196	197	215	201	208
15	233	219	226	216	213	215	196	195	196	214	194	206
16	228	218	223	215	212	214	205	196	200	213	199	6
17	229	220	224	238	208	218	206	196	200	217	198	209
18	230	217	221	217	203	211	202	196	201	219	198	210
19	237	219	227	220	213	216	206	197	201	202	181	191
20	225	219	221	225	214	220	204	198	200	208	192	198
21	229	220	222	227	225	227	204	199	201	215	198	203
22	233	220	226	226	203	217	203	200	201	214	198	204
23	225	219	221	203	199	200	218	200	207	223	208	213
24	221	218	219	205	200	203	221	206	212	223	206	213
25	233	216	222	208	205	207	221	210	214	223	208	213
26	222	216	219	209	202	206	---	---	---	224	208	213
27	229	213	217	206	202	205	---	---	---	214	197	208
28	228	213	220	209	201	205	---	---	---	216	193	204
29	---	---	---	210	202	206	---	---	---	215	184	197
30	---	---	---	211	202	206	---	---	---	213	189	197
31	---	---	---	215	207	211	---	---	---	209	181	194
MONTH	244	202	221	251	199	214	221	195	204	251	181	206

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	203	192	197	214	202	207	205	185	193	200	181	195
2	203	190	195	218	204	208	205	182	191	198	181	192
3	204	192	199	218	201	208	213	182	194	198	---	193
4	210	196	202	211	200	206	196	181	189	201	187	196
5	209	192	202	211	201	207	199	182	190	238	193	208
6	210	194	203	206	197	201	199	183	190	213	190	201
7	207	197	204	211	193	200	206	189	197	214	185	198
8	207	200	204	206	193	199	198	182	190	195	188	192
9	210	201	206	211	201	205	194	180	187	192	181	189
10	212	198	203	216	201	209	196	179	189	195	180	191
11	234	203	217	213	206	210	190	179	184	195	183	191
12	218	207	212	218	201	208	193	182	188	192	181	188
13	217	209	214	225	205	216	192	180	188	199	186	191
14	218	210	210	223	203	213	194	182	188	199	180	192
15	219	210	214	233	212	216	191	181	186	196	183	192
16	223	212	216	225	208	216	192	183	188	195	180	192
17	221	210	214	215	198	207	195	186	191	202	187	197
18	218	206	212	209	192	202	198	183	191	198	188	194
19	212	197	205	207	188	201	195	187	193	201	185	193
20	218	201	208	209	192	198	195	180	192	196	186	193
21	223	209	214	204	193	197	198	183	192	202	185	194
22	219	201	207	206	194	198	198	188	195	204	190	197
23	218	200	206	197	188	193	202	187	196	200	188	195
24	213	199	204	202	190	195	203	192	199	237	195	211
25	208	190	202	206	193	201	205	194	200	207	193	200
26	206	199	204	220	193	203	203	185	197	214	186	197
27	213	199	204	198	189	193	203	190	197	221	193	208
28	218	198	205	199	189	194	201	185	195	230	209	222
29	216	202	207	194	185	191	201	188	197	237	208	226
30	208	200	205	197	188	191	203	188	195	252	224	233
31	---	---	---	193	187	190	200	190	195	---	---	---
MONTH	234	190	206	233	185	203	213	179	192	252	180	199

CUMBERLAND RIVER BASIN

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.4	8.0	8.9	8.2	7.9	7.8	8.0	7.9	7.8	7.6	8.3	8.0
2	8.0	7.8	8.7	8.4	7.9	7.8	8.0	7.9	7.9	7.8	8.2	8.0
3	8.0	7.5	8.7	8.4	7.9	7.8	8.1	7.9	7.9	7.8	8.3	8.0
4	8.5	7.5	8.7	8.3	7.9	7.8	8.1	8.0	7.8	7.6	8.3	7.9
5	8.7	7.8	8.7	8.3	8.0	7.8	8.3	8.0	7.8	7.7	8.3	8.0
6	8.6	7.8	8.7	8.2	8.0	7.8	8.2	8.1	7.8	7.8	8.4	8.0
7	8.1	7.7	8.6	8.1	7.8	7.7	8.2	8.0	7.9	7.8	8.5	8.0
8	8.5	7.8	8.6	8.3	7.8	7.6	8.2	8.0	7.9	7.8	8.5	8.0
9	8.5	7.7	8.7	8.2	7.7	7.6	8.3	8.0	7.9	7.8	8.5	8.2
10	8.6	8.0	8.5	8.2	7.7	7.6	8.3	8.2	7.9	7.8	8.6	8.0
11	8.2	7.8	8.5	8.2	7.7	7.6	8.3	8.1	7.8	7.8	8.6	7.9
12	8.1	7.8	8.5	8.2	7.7	7.5	8.5	8.1	7.9	7.8	8.6	7.8
13	7.9	7.6	8.4	8.1	7.6	7.5	8.4	8.2	7.9	7.8	8.7	8.4
14	8.1	7.7	8.4	8.1	7.6	7.5	8.5	8.2	7.9	7.8	8.8	8.5
15	8.0	7.9	8.3	8.0	7.6	7.6	8.5	8.2	7.9	7.8	8.7	8.6
16	8.0	7.7	8.2	8.0	7.6	7.6	8.6	8.2	7.9	7.9	8.7	8.5
17	7.8	7.6	8.3	7.9	7.7	7.6	8.5	8.2	8.0	7.9	8.5	7.8
18	7.8	7.5	8.2	7.8	7.7	7.5	8.6	8.4	8.0	7.8	8.1	7.5
19	8.0	7.5	8.2	7.7	7.6	7.6	8.4	8.4	8.0	7.9	7.6	7.5
20	8.4	7.7	8.4	7.8	7.6	7.5	8.5	8.2	8.0	7.8	7.5	7.4
21	8.7	8.0	8.1	7.8	7.7	7.6	8.6	8.4	8.1	8.0	7.4	7.3
22	8.4	7.9	8.3	7.7	7.7	7.6	8.6	8.4	8.1	7.9	7.4	7.4
23	8.2	7.9	8.2	7.7	7.8	7.6	8.4	8.3	8.1	7.9	7.5	7.4
24	8.6	7.9	8.1	7.8	7.7	7.5	8.3	8.1	8.1	7.9	7.5	7.4
25	8.5	8.0	8.2	7.6	7.6	7.5	8.1	7.8	8.2	7.9	7.5	7.4
26	8.4	8.1	8.2	7.8	7.6	7.5	7.8	7.8	8.1	8.0	7.5	7.4
27	8.7	8.0	8.0	7.9	7.8	7.5	7.9	7.8	8.1	7.9	7.5	7.5
28	8.6	8.3	7.9	7.8	7.9	7.7	7.8	7.8	8.2	8.0	7.5	7.5
29	8.8	8.1	7.9	7.8	8.0	7.8	7.8	7.7	---	---	7.5	7.5
30	8.9	8.1	7.9	7.8	8.0	7.8	7.8	7.8	---	---	7.6	7.5
31	8.7	8.4	---	---	8.0	7.8	7.8	7.7	---	---	7.5	7.5
MONTH	8.9	7.5	8.9	7.6	8.0	7.5	8.6	7.7	8.2	7.6	8.8	7.3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	7.5	7.5	8.0	7.8	8.2	7.8	7.8	7.6	7.7	7.5	8.0	7.7
2	7.5	7.5	7.8	7.6	8.0	7.7	7.7	7.4	8.0	7.6	8.0	7.7
3	7.5	7.5	7.7	7.6	7.9	7.5	7.7	7.5	7.8	7.5	8.1	7.7
4	7.6	7.5	7.6	7.5	7.9	7.5	7.7	7.5	7.8	7.5	8.1	7.6
5	7.6	7.6	7.6	7.5	7.7	7.4	7.6	7.5	7.6	7.4	7.9	7.6
6	7.6	7.5	7.5	7.4	7.7	7.4	7.8	7.6	7.6	7.4	7.9	7.5
7	7.6	7.5	7.5	7.4	7.7	7.5	7.8	7.6	7.6	7.5	7.9	7.5
8	7.6	7.6	7.6	7.4	7.8	7.6	7.8	7.6	7.9	7.5	7.8	7.6
9	7.6	7.6	7.6	7.5	7.8	7.6	7.7	7.4	7.8	7.5	7.8	7.5
10	7.6	7.6	7.6	7.5	7.8	7.6	7.7	7.5	7.7	7.4	7.9	7.6
11	7.6	7.5	7.6	7.5	7.8	7.5	7.6	7.5	8.0	7.3	7.9	7.6
12	7.5	7.5	7.5	7.5	8.0	7.5	7.8	7.6	7.7	7.5	7.9	7.7
13	7.5	7.5	7.5	7.4	8.0	7.5	7.7	7.5	7.7	7.5	8.1	7.7
14	7.6	7.5	7.8	7.4	7.8	7.5	7.9	7.6	7.8	7.5	8.2	7.6
15	7.6	7.6	7.8	7.7	7.8	7.5	7.8	7.4	7.8	7.5	8.1	7.9
16	7.6	7.6	7.8	7.7	7.7	7.6	7.8	7.4	7.8	7.5	8.1	7.8
17	7.6	7.6	7.7	7.7	7.8	7.6	8.0	7.5	8.1	7.7	7.9	7.7
18	7.6	7.6	7.7	7.4	8.0	7.6	7.7	7.6	8.0	7.7	8.1	7.7
19	7.6	7.5	7.4	7.4	8.0	7.6	7.7	7.4	8.0	7.6	8.5	7.8
20	7.5	7.4	7.5	7.4	8.0	7.6	7.7	7.5	7.9	7.6	8.4	8.0
21	7.5	7.4	7.5	7.5	7.8	7.5	7.7	7.5	7.9	7.7	8.2	7.8
22	7.5	7.4	7.5	7.5	7.9	7.6	7.8	7.5	8.1	7.7	8.3	7.8
23	7.8	7.4	7.5	7.5	7.7	7.6	7.8	7.6	7.9	7.6	8.2	8.0
24	7.9	7.6	7.5	7.5	7.7	7.6	7.7	7.5	7.8	7.6	8.5	8.1
25	8.1	7.6	7.5	7.5	7.7	7.5	7.8	7.5	7.7	7.5	8.4	7.9
26	8.2	7.9	7.5	7.5	7.8	7.5	7.8	7.6	7.7	7.5	8.2	7.5
27	8.1	7.9	7.6	7.5	7.8	7.4	7.9	7.7	7.8	7.6	7.8	7.5
28	8.1	7.8	8.0	7.6	7.9	7.5	7.8	7.6	7.8	7.6	7.7	7.4
29	7.9	7.7	8.0	7.8	7.9	7.6	7.9	7.6	7.8	7.6	7.7	7.3
30	8.1	7.7	8.0	7.8	7.9	7.6	7.8	7.6	7.8	7.6	7.8	7.2
31	---	---	8.2	7.8	---	---	7.6	7.6	8.3	7.7	---	---
MONTH	8.2	7.4	8.2	7.4	8.2	7.4	8.0	7.4	8.3	7.3	8.5	7.2

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.1	19.5	19.8	16.5	14.6	15.7	13.9	13.6	13.7	8.0	7.1	7.5
2	20.5	19.3	19.6	17.2	15.5	16.3	13.8	13.5	13.6	7.3	6.9	7.1
3	19.7	19.1	19.5	17.5	15.7	16.6	13.8	13.2	13.5	7.0	6.4	6.8
4	20.0	19.1	19.6	16.6	15.1	16.0	14.0	13.1	13.5	6.8	6.0	6.4
5	20.4	19.4	19.8	16.3	15.0	15.6	14.0	13.4	13.6	7.2	5.9	6.4
6	19.9	18.8	19.4	16.4	14.8	15.5	14.0	13.6	13.7	6.4	5.9	6.2
7	18.9	18.2	18.5	16.3	14.7	15.4	14.1	13.6	13.9	6.3	5.6	5.9
8	19.0	18.1	18.5	16.2	14.5	15.5	14.1	13.5	13.8	6.7	5.5	5.9
9	18.9	18.0	18.5	16.2	15.1	15.6	13.5	12.9	13.3	6.5	5.7	6.1
10	19.6	18.5	18.9	15.9	14.7	15.3	12.9	12.7	12.7	6.6	6.1	6.3
11	19.0	18.6	18.8	15.7	14.5	15.2	12.8	12.6	12.7	7.3	6.4	6.8
12	18.8	18.6	18.7	15.6	14.4	15.0	12.9	12.6	12.8	7.5	6.4	6.8
13	19.3	18.6	18.9	15.4	14.4	14.9	13.2	12.9	13.0	7.4	6.4	6.8
14	19.5	18.8	19.0	15.4	14.6	15.0	13.1	12.9	13.0	7.8	6.6	7.0
15	19.0	18.6	18.7	15.7	14.5	15.0	12.9	12.7	12.8	7.9	6.8	7.2
16	18.6	17.7	18.3	15.5	14.5	14.8	13.1	12.9	13.0	7.8	6.7	7.2
17	17.9	17.0	17.5	15.5	14.3	14.9	13.4	13.1	13.2	7.6	7.2	7.4
18	17.7	16.9	17.2	15.5	14.1	14.9	13.4	12.9	13.1	7.8	7.0	7.3
19	17.5	16.9	17.2	15.0	14.5	14.7	12.9	12.3	12.6	7.5	7.0	7.2
20	17.8	17.0	17.3	14.9	13.8	14.4	12.3	11.8	12.0	7.4	6.8	7.1
21	18.2	17.0	17.5	14.4	13.0	13.8	12.2	11.5	11.8	7.8	7.1	7.4
22	18.1	17.1	17.5	14.1	13.0	13.5	12.0	11.4	11.7	7.6	7.1	7.4
23	18.4	17.4	17.9	14.0	13.0	13.7	12.1	11.1	11.6	8.1	7.5	7.8
24	19.1	18.0	18.5	14.4	13.7	14.1	11.3	10.5	11.0	8.9	7.8	8.4
25	18.6	17.6	18.1	14.6	13.8	14.1	10.5	10.2	10.4	8.2	7.3	7.6
26	17.6	16.6	17.2	14.2	13.5	14.0	10.2	9.5	9.8	9.2	8.2	8.8
27	17.0	15.6	16.4	14.5	14.2	14.4	9.7	9.2	9.4	9.1	8.8	8.9
28	16.6	15.3	15.8	14.5	14.2	14.4	9.4	9.0	9.2	9.5	8.9	9.3
29	16.1	15.0	15.5	14.3	14.1	14.2	9.6	8.5	9.1	10.0	9.5	9.8
30	16.1	14.9	15.6	14.2	13.8	14.1	9.2	8.0	8.5	10.4	10.0	10.2
31	16.3	14.9	15.7	---	---	---	8.5	7.4	7.9	11.4	10.4	10.8
MONTH	20.5	14.9	18.0	17.5	13.0	14.9	14.1	7.4	12.1	11.4	5.5	7.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.5	10.8	11.1	8.6	7.9	8.3	11.3	10.9	11.1	18.4	17.7	18.1
2	10.8	10.5	10.6	8.6	8.3	8.4	11.9	11.2	11.5	18.0	17.6	17.8
3	10.5	10.1	10.3	8.5	7.9	8.3	12.1	11.8	11.9	18.0	17.4	17.6
4	10.1	9.6	9.9	8.8	7.2	7.8	11.8	11.5	11.7	17.4	17.1	17.3
5	9.6	9.2	9.3	8.3	7.3	7.8	11.9	11.4	11.7	17.8	17.1	17.5
6	9.2	8.8	8.9	8.7	7.6	8.2	12.0	11.6	11.8	17.6	17.4	17.5
7	8.8	8.3	8.5	9.3	8.3	8.7	12.1	11.7	12.0	18.2	17.4	17.8
8	8.6	8.2	8.4	9.5	8.6	9.0	12.4	12.0	12.2	18.6	17.6	18.1
9	9.0	8.4	8.7	9.8	9.0	9.3	12.6	12.3	12.4	18.2	17.9	18.0
10	9.1	8.8	8.9	10.1	8.8	9.4	12.8	12.2	12.5	18.0	17.6	17.8
11	9.3	8.8	9.0	10.1	8.7	9.3	13.3	12.6	12.9	18.0	17.6	17.8
12	9.2	8.6	8.9	10.1	9.3	9.7	13.9	13.2	13.5	18.1	17.7	17.9
13	9.2	8.6	8.8	10.4	9.6	10	14.2	13.7	13.9	17.9	17.4	17.7
14	9.1	8.4	8.7	10.8	9.7	10.3	14.6	14.1	14.3	17.4	16.9	17.1
15	9.0	8.6	8.8	11.2	10.6	11.0	15.2	14.4	14.8	17.1	16.6	16.9
16	9.3	8.7	8.9	11.3	10.8	11.1	16.1	15.2	15.7	17.3	16.9	17.0
17	9.3	8.7	9.0	12.1	10.7	11.0	16.8	15.8	16.3	17.3	17.0	17.1
18	9.4	8.6	9.0	11.7	11.4	11.5	16.8	16.1	16.5	17.2	16.4	16.9
19	9.2	8.9	9.0	12.1	11.4	11.7	17.7	16.4	17.0	16.2	15.7	15.9
20	9.9	9.1	9.5	12.1	12.0	12.1	17.7	16.7	17.3	16.1	15.4	15.8
21	10.1	9.3	9.6	12.2	11.9	12.0	18.0	17.4	17.7	16.3	15.6	15.9
22	9.8	9.4	9.6	11.9	11.1	11.4	18.5	17.0	17.9	16.4	15.6	16.0
23	9.9	9.2	9.5	11.4	11.0	11.2	17.8	16.8	17.3	16.9	16.1	16.5
24	10.0	9.4	9.7	11.4	11.0	11.2	18.0	17.4	17.7	17.0	16.5	16.8
25	10.1	9.5	9.8	11.3	10.8	11.1	18.1	17.4	17.7	17.5	16.7	17.1
26	9.9	9.1	9.6	11.3	10.9	11.2	17.8	16.8	17.5	17.6	17.3	17.5
27	9.1	8.3	8.6	10.9	10.5	10.7	17.5	16.7	17.2	18.4	17.4	17.9
28	8.7	8.1	8.4	10.9	10.3	10.6	18.3	17.3	17.8	18.5	18.0	18.2
29	---	---	---	11.6	10.8	11.2	18.4	17.7	18.0	19.2	18.1	18.6
30	---	---	---	11.6	11.3	11.4	18.3	17.4	18.0	19.8	18.4	19.0
31	---	---	---	11.3	11.1	11.2	---	---	---	20.0	18.5	19.3
MONTH	11.5	8.1	9.2	12.2	7.2	10.2	18.5	10.9	14.9	20.0	15.4	17.4

CUMBERLAND RIVER BASIN

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.0	19.1	19.6	27.4	25.3	26.1	26.5	25.0	25.8	27.4	25.4	26.3
2	20.6	19.1	19.9	27.4	25.6	26.4	27.5	25.0	26.2	27.4	25.3	26.1
3	22.3	19.4	20.4	26.8	25.7	26.3	26.5	25.4	25.9	27.6	25.3	26.2
4	21.5	19.8	20.7	27.4	25.6	26.5	27.2	25.2	26.2	27.2	25.1	26.0
5	22.3	20.3	21.1	27.4	26.0	26.7	26.7	25.3	26.0	25.9	24.5	25.2
6	22.0	20.2	21.2	27.4	26.4	26.9	26.7	25.0	25.8	26.2	23.9	25.2
7	21.4	19.9	20.7	27.9	25.9	26.8	26.0	24.1	25.2	26.4	24.1	25.4
8	23.3	20.8	22.2	27.5	26.0	26.8	26.8	24.9	26.1	26.0	24.8	25.5
9	23.8	21.7	22.7	27.3	25.6	26.5	28.2	25.5	26.6	26.2	24.5	25.4
10	23.8	22.3	23.1	27.6	25.4	26.2	27.1	25.5	26.3	26.4	24.5	25.3
11	23.6	21.8	22.8	26.7	25.5	26.1	27.4	25.8	26.6	26.8	24.4	25.5
12	24.2	22.7	23.6	27.6	25.5	26.7	27.4	25.6	26.3	25.9	24.1	25.1
13	24.4	22.9	23.7	26.7	25.4	26.1	26.7	25.3	26.1	26.2	24.9	25.7
14	24.0	22.4	23.3	26.9	25.3	26.0	27.5	25.5	26.3	26.1	24.8	25.4
15	24.6	22.5	23.4	27.0	24.4	26.0	26.6	25.5	26.2	26.5	25.1	25.8
16	23.4	22.6	23.0	27.3	25.1	26.3	26.5	25.4	25.9	26.8	24.7	25.6
17	24.8	22.5	23.7	26.9	25.6	26.3	26.5	25.2	25.9	25.9	24.4	25.3
18	25.6	23.4	24.6	26.5	25.0	26.0	27.2	25.3	26.1	25.6	24.1	24.9
19	25.6	23.7	24.7	26.6	24.9	25.8	28.0	25.1	26.1	26.2	24.4	25.3
20	25.9	23.7	24.9	26.6	25.2	25.9	27.1	25.5	26.2	26.5	24.7	25.5
21	25.7	23.8	24.8	27.7	25.4	26.2	27.2	25.4	26.2	26.2	24.2	25.3
22	25.8	23.9	24.9	27.1	25.4	26.3	27.4	25.5	26.4	25.6	23.9	24.7
23	25.2	24.0	24.6	27.4	25.7	26.4	27.2	25.2	26.0	24.6	23.1	23.9
24	25.6	24.3	25.0	26.6	25.6	26.2	27.0	25.1	25.9	24.3	23.0	23.6
25	25.6	24.0	25.0	27.3	25.9	26.6	26.6	24.7	25.6	23.7	22.6	23.2
26	25.9	23.9	25.0	27.0	25.9	26.7	26.2	24.5	25.3	23.4	21.4	22.6
27	25.8	24.5	25.1	26.9	26.0	26.4	26.7	24.8	25.6	22.3	21.3	22.0
28	25.8	24.2	25.1	26.9	25.6	26.3	27.0	25.2	25.9	22.6	21.0	21.7
29	26.5	24.6	25.5	27.5	24.8	26.1	27.2	25.4	26.1	22.7	21.0	21.8
30	27.6	25.0	26.1	26.8	24.8	25.8	26.9	25.4	26.1	22.8	20.9	21.9
31	---	---	---	26.0	24.6	25.3	27.5	25.7	26.5	---	---	---
MONTH	27.6	19.1	23.3	27.9	24.4	26.3	28.2	24.1	26.0	27.6	20.9	24.7

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.0	9.2	9.6	9.5	7.2	8.6	---	---	---	12.2	11.4	11.8
2	9.8	8.6	9.2	9.6	8.1	8.8	---	---	---	12.4	12.0	12.2
3	9.5	8.3	9.1	9.1	7.8	8.6	9.3	9.1	9.2	12.9	12.0	12.4
4	10.2	8.3	9.3	9.6	7.7	8.6	9.5	8.8	9.2	13.2	12.4	12.7
5	10.2	8.4	9.3	9.5	7.4	8.2	9.9	9.1	9.6	13.8	12.8	13.1
6	10.2	8.6	9.4	9.7	6.7	8.1	10.2	9.6	9.8	13.4	12.8	13.1
7	9.3	8.2	8.8	9.5	7.0	8.3	10.1	9.4	9.8	13.8	12.8	13.3
8	10.1	8.5	9.5	9.7	7.7	8.8	9.8	9.3	9.5	13.7	12.9	13.2
9	10.1	8.2	9.0	10.2	7.8	8.9	10.0	9.6	9.8	14.1	12.9	13.5
10	10.1	8.5	9.2	9.6	7.3	8.4	10.2	9.7	10	13.8	13.4	13.5
11	9.0	6.9	8.2	9.8	8.0	9.3	10.2	9.9	10.0	13.9	12.7	13.4
12	8.8	6.9	7.6	10.2	8.4	9.5	10.2	9.9	10	14.8	12.9	13.5
13	7.9	5.8	7.0	9.6	8.0	8.7	10.2	9.9	10.1	14.0	12.9	13.6
14	8.5	7.1	7.9	9.9	7.8	9.0	10.6	10.1	10.3	14.4	13.2	13.8
15	8.6	7.7	8.1	9.6	8.5	9.0	10.8	10.5	10.6	14.3	13.0	13.6
16	9.1	7.4	8.2	9.5	8.3	8.9	10.8	10.5	10.7	14.6	13.0	13.8
17	8.1	6.0	7.2	9.9	8.4	9.1	10.7	10.4	10.6	14.3	12.7	13.6
18	7.5	5.0	6.3	10.1	8.0	9.2	10.8	10.4	10.6	14.9	13.5	14.1
19	8.3	5.3	7.2	9.9	8.6	9.1	10.6	10.4	10.5	14.0	13.7	13.9
20	10.3	6.4	8.1	10.2	7.3	8.8	10.6	10.2	10.3	14.3	12.9	13.9
21	10.2	7.1	8.2	9.3	7.7	8.6	10.4	9.9	10.1	14.8	13.7	14.3
22	10.2	6.3	8.6	10.2	7.1	8.8	10.1	9.7	9.9	14.7	13.5	14.3
23	9.2	7.0	8.1	10.2	7.3	9.2	---	---	---	14.1	13.4	13.7
24	10.8	6.5	8.9	9.8	8.3	9.1	---	---	---	14.5	13.3	13.8
25	10.1	7.7	9.1	10.4	8.6	9.7	---	---	---	14.4	13.2	14.1
26	9.6	8.0	9.1	10.3	8.8	9.7	---	---	---	13.2	12.5	12.7
27	10.4	7.8	8.9	9.6	8.6	9.2	10.4	9.9	10.2	12.7	12.0	12.5
28	10.4	8.7	9.4	9.4	8.1	9.1	11.0	10.0	10.6	12.6	11.4	12.0
29	11.1	9.1	10.1	9.5	8.7	9.2	11.4	10.2	10.9	11.5	10.4	11.1
30	9.7	7.4	8.7	---	---	---	11.9	10.8	11.3	11.2	10.1	10.9
31	8.7	7.4	8.2	---	---	---	12.2	11.1	11.5	---	---	---
MONTH	11.1	5.0	8.6	10.4	6.7	8.9	12.2	8.8	10.2	14.9	10.1	13.2

03431091 CUMBERLAND RIVER AT OMOHUNDRO WATER PLANT AT NASHVILLE, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	13.3	12.8	13.1	10.4	9.9	10.3	9.5	8.7	9.0
2	---	---	---	12.9	12.3	12.6	10.4	10.1	10.2	9.1	8.3	8.6
3	---	---	---	12.8	12.0	12.5	10.3	10.0	10.1	8.4	8.2	8.3
4	10.9	---	---	13.0	11.5	12.4	10.3	9.8	10.0	8.3	8.1	8.2
5	11.1	10.3	10.7	13.0	11.9	12.5	9.8	9.4	9.5	8.8	8.3	8.5
6	11.6	10.6	11.1	12.9	11.6	12.4	9.8	9.4	9.7	8.6	7.8	8.3
7	11.9	10.9	11.4	12.6	11.5	12.1	10.0	9.7	9.8	8.4	7.9	8.1
8	12.0	11.4	11.7	12.4	11.0	11.9	9.9	9.6	9.7	9.4	8.0	8.6
9	12.1	11.4	11.8	---	---	---	9.8	9.6	9.7	9.3	8.5	8.7
10	12.3	11.5	11.9	---	---	---	10.2	9.6	9.8	9.1	8.3	8.7
11	12.6	11.6	12.1	---	---	---	10.2	9.8	9.9	9.3	8.8	9.1
12	12.8	12.0	12.4	13.0	11.5	12.4	10.0	9.7	9.8	9.1	8.6	8.8
13	13.0	12.2	12.6	12.9	11.2	12.0	10.0	9.5	9.8	9.0	7.8	8.2
14	13.2	11.7	12.8	12.6	11.3	12.0	10.0	9.6	9.8	10.6	7.9	9.2
15	13.3	12.1	13.0	12.3	11.3	11.9	10.2	9.6	9.9	10.3	9.0	9.7
16	13.3	12.9	13.2	11.7	11.0	11.2	10.2	9.8	10	9.9	9.0	9.5
17	13.4	12.9	13.2	11.0	9.8	10.4	10.3	9.2	9.8	9.6	8.8	9.3
18	13.6	13.0	13.4	10.7	10.3	10.6	10.2	9.0	9.6	9.5	8.8	9.1
19	13.8	13.1	13.5	10.3	9.3	9.8	11.0	9.2	10.3	10.9	10.2	10.6
20	13.7	13.0	13.5	9.5	9.2	9.4	10.6	9.9	10.3	10.9	9.9	10.4
21	14.2	13.2	13.6	9.6	9.3	9.4	10.4	9.8	10.1	10.7	9.7	10.2
22	13.9	13.2	13.6	9.6	9.3	9.5	10.4	9.2	9.9	11.2	9.7	10.6
23	13.9	13.2	13.6	9.6	9.5	9.6	9.8	8.9	9.4	11.8	10.1	11.0
24	13.8	13.2	13.6	9.6	9.2	9.5	9.4	8.8	9.3	11.9	10.9	11.4
25	14.0	12.8	13.7	9.8	9.6	9.7	9.3	8.6	8.9	12.3	11.3	12.0
26	13.6	13.0	13.4	9.8	9.5	9.7	9.6	9.1	9.3	11.3	9.9	10.7
27	13.4	12.7	13.1	10.4	9.8	10.1	9.4	8.9	9.1	---	---	---
28	13.6	12.9	13.2	10.2	10.0	10.1	9.4	8.5	9.0	9.6	7.9	9.0
29	---	---	---	10.0	9.7	9.9	9.3	8.6	8.9	---	---	---
30	---	---	---	10.0	9.8	9.9	9.8	8.7	9.4	---	---	---
31	---	---	---	10.0	9.7	9.8	---	---	---	---	---	---
MONTH	14.2	10.3	12.8	13.3	9.2	10.9	11.0	8.5	9.7	12.3	7.8	9.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	8.3	5.8	6.6	6.2	4.6	5.6	---	---	---
2	---	---	---	7.4	5.8	6.4	7.0	5.1	6.1	---	---	---
3	---	---	---	6.8	5.6	6.2	6.4	4.0	5.4	6.5	5.0	5.2
4	---	---	---	6.8	5.8	6.3	5.9	4.6	5.4	5.0	4.7	4.9
5	---	---	---	7.2	5.7	6.3	5.5	4.0	4.7	5.1	4.5	4.5
6	8.9	7.6	8.3	7.6	6.0	7.0	4.6	4.1	4.4	6.0	4.4	4.9
7	8.1	7.3	7.8	8.0	5.9	7.1	4.8	3.6	4.1	6.1	4.5	5.3
8	8.3	7.2	7.7	7.4	5.8	6.7	5.4	3.6	4.7	5.6	4.5	5.0
9	8.3	7.4	7.9	7.3	5.9	6.6	6.0	3.7	4.9	5.3	4.5	4.9
10	8.3	7.3	7.8	6.8	5.2	6.1	---	4.1	---	---	4.5	---
11	---	---	---	6.1	5.0	5.6	5.9	4.0	5.1	5.5	4.5	5.2
12	---	---	---	6.1	5.1	5.7	5.6	3.8	4.8	5.3	5.1	5.2
13	---	---	---	6.5	5.1	5.7	5.9	4.0	4.9	7.2	4.4	5.7
14	---	---	---	8.0	5.7	6.7	6.3	4.0	5.3	7.2	5.2	6.1
15	---	---	---	7.9	5.1	6.4	6.4	4.4	5.5	7.0	5.3	6.3
16	---	---	---	7.4	5.4	6.6	6.2	4.2	5.4	6.6	5.2	6.0
17	---	---	---	8.0	5.1	6.7	6.9	5.2	5.9	6.5	5.0	5.8
18	6.2	5.2	5.8	7.3	5.4	6.2	6.6	4.6	6.0	6.6	4.5	5.5
19	6.2	5.2	5.8	6.8	5.5	6.3	6.6	4.8	5.6	8.1	5.1	6.5
20	6.8	5.3	6.1	6.7	5.1	5.8	6.3	4.9	5.7	8.1	5.6	6.8
21	6.6	5.4	5.9	6.6	5.1	5.9	6.0	5.3	5.7	7.5	5.1	6.3
22	7.1	5.3	6.2	7.1	5.2	6.0	6.2	4.6	5.5	8.2	5.5	6.1
23	6.5	5.6	6.1	6.9	5.2	6.2	5.3	4.5	4.8	8.4	6.7	7.7
24	6.5	5.6	6.0	6.5	5.0	5.7	---	---	---	8.1	7.9	8.1
25	6.4	5.4	5.8	6.2	5.1	5.6	---	---	---	8.1	5.1	6.3
26	6.0	5.4	5.7	6.4	5.0	5.7	---	---	---	6.5	4.7	5.4
27	6.7	5.5	6.0	6.5	5.1	5.9	---	---	---	5.6	4.8	5.2
28	7.2	5.5	6.3	6.4	5.0	5.7	---	---	---	7.3	4.0	5.3
29	7.1	5.5	6.1	6.2	5.2	5.7	---	---	---	7.8	4.5	5.3
30	7.4	5.7	6.5	6.0	5.3	5.7	---	---	---	7.3	4.1	5.0
31	---	---	---	5.8	5.0	5.4	---	---	---	---	---	---
MONTH	8.9	5.2	6.5	8.3	5.0	6.1	7.0	3.6	5.2	8.4	4.0	5.7

CUMBERLAND RIVER BASIN

03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN

LOCATION.--Lat 36°07'47", long 86°45'40", Davidson County, Hydrologic Unit 05130202, near center of span on downstream side of bridge on access road to pit area of the race track at State Fairgrounds, 300 ft west of Craighead Street, 0.3 mi upstream from bridge on U.S. Highway 31A and 41A, and 2.8 mi southwest of the State Capitol in Nashville.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--December 1963 to September 1975. August 1993 to current year.

REVISED RECORDS.--WDR TN-94-1: 1975 (p).

GAGE.--Data collection platform. Datum of gage is 439.81 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1030	1,060	5.95	Jul 12	1610	1,510	7.01
Mar 17	2000	*2,160	*8.09	Aug 16	1400	1,380	6.73
May 1	0030	1,100	6.05				

Minimum discharge, 1.4 ft³/s, Oct. 1, 2, 3, 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.9	30	4.5	46	6.2	105	95	4.0	11	3.1	1.9
2	1.4	2.8	17	4.5	21	5.9	67	24	3.7	5.2	2.8	1.8
3	1.4	2.7	13	4.3	22	5.5	49	18	3.4	43	2.7	1.7
4	1.4	2.7	10	4.6	17	5.4	38	37	7.6	20	2.5	2.3
5	39	2.5	8.3	4.8	15	5.4	30	20	5.9	6.4	2.4	1.9
6	8.1	2.4	8.5	4.7	15	5.3	24	16	38	4.8	2.3	12
7	3.6	2.4	13	4.1	19	5.2	21	14	5.7	3.9	2.3	2.7
8	3.1	2.3	54	3.9	16	5.0	18	11	4.6	13	2.2	2.2
9	2.5	2.2	20	4.1	14	15	16	12	4.1	28	2.0	2.0
10	2.2	2.2	16	6.1	15	6.6	14	16	3.7	19	2.0	1.8
11	3.8	2.2	13	6.9	12	6.6	13	9.5	3.4	8.4	2.0	1.7
12	18	2.3	19	4.6	11	12	14	7.8	3.1	160	1.9	1.6
13	38	2.4	88	4.5	10	7.9	10	130	6.0	76	1.9	1.6
14	70	2.4	58	4.3	9.6	7.5	8.9	37	3.0	28	45	1.8
15	12	2.2	28	4.0	9.0	6.8	8.6	24	2.7	17	12	34
16	8.0	2.1	19	3.9	8.4	23	7.8	18	2.6	12	101	6.1
17	5.7	2.0	27	5.1	7.6	492	7.1	30	2.4	9.3	18	6.0
18	4.7	2.0	16	6.4	7.2	328	6.6	18	2.3	13	19	5.9
19	4.2	2.9	13	48	6.6	165	6.0	13	2.2	7.0	8.0	3.6
20	3.8	2.4	11	16	19	264	5.4	11	2.1	5.7	5.9	41
21	3.7	2.1	9.5	13	8.4	130	5.1	9.4	2.0	4.9	4.7	12
22	3.3	2.0	8.8	18	7.6	80	13	8.2	1.9	27	3.9	5.9
23	3.2	2.0	15	91	7.1	57	5.1	7.0	1.8	19	3.5	4.5
24	26	10	9.2	273	6.4	43	80	6.2	1.8	8.2	3.2	3.8
25	7.3	3.2	7.8	104	6.4	34	19	5.7	57	6.2	3.0	5.7
26	4.7	2.7	7.5	54	14	72	12	7.8	5.5	5.2	2.7	252
27	4.1	15	6.6	33	7.0	36	9.5	5.3	18	5.1	2.4	208
28	3.6	5.3	6.1	23	6.4	29	33	5.3	6.4	4.2	2.3	58
29	3.3	342	5.5	18	---	27	11	4.7	4.4	3.7	2.2	32
30	3.2	106	5.2	29	---	33	11	8.8	22	3.6	2.2	21
31	3.0	---	5.0	18	---	225	---	4.5	---	3.3	2.0	---
TOTAL	297.7	538.3	568.0	823.3	363.7	2144.3	668.1	634.2	231.3	581.1	271.1	736.5
MEAN	9.603	17.94	18.32	26.56	12.99	69.17	22.27	20.46	7.710	18.75	8.745	24.55
MAX	70	342	88	273	46	492	105	130	57	160	101	252
MIN	1.4	2.0	5.0	3.9	6.4	5.0	5.1	4.5	1.8	3.3	1.9	1.6
CF5M	0.81	1.52	1.55	2.25	1.10	5.86	1.89	1.73	0.65	1.59	0.74	2.08
IN.	0.94	1.70	1.79	2.60	1.15	6.76	2.11	2.00	0.73	1.83	0.85	2.32

03431300 BROWNS CREEK AT STATE FAIRGROUNDS, AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.143	12.95	20.82	26.53	25.70	37.65	23.11	19.06	14.14	7.292	6.378	6.332
MAX	24.5	34.8	63.8	86.5	59.1	102	50.3	39.2	61.0	19.8	23.2	24.5
(WY)	1996	1974	1973	1974	2001	1975	1973	2000	1998	1967	1971	2002
MIN	0.71	1.36	1.28	5.79	5.87	9.70	4.36	5.42	1.71	0.96	1.65	0.92
(WY)	1966	1966	1966	1966	1967	1966	1967	1971	1966	1964	1968	1965

SUMMARY STATISTICS

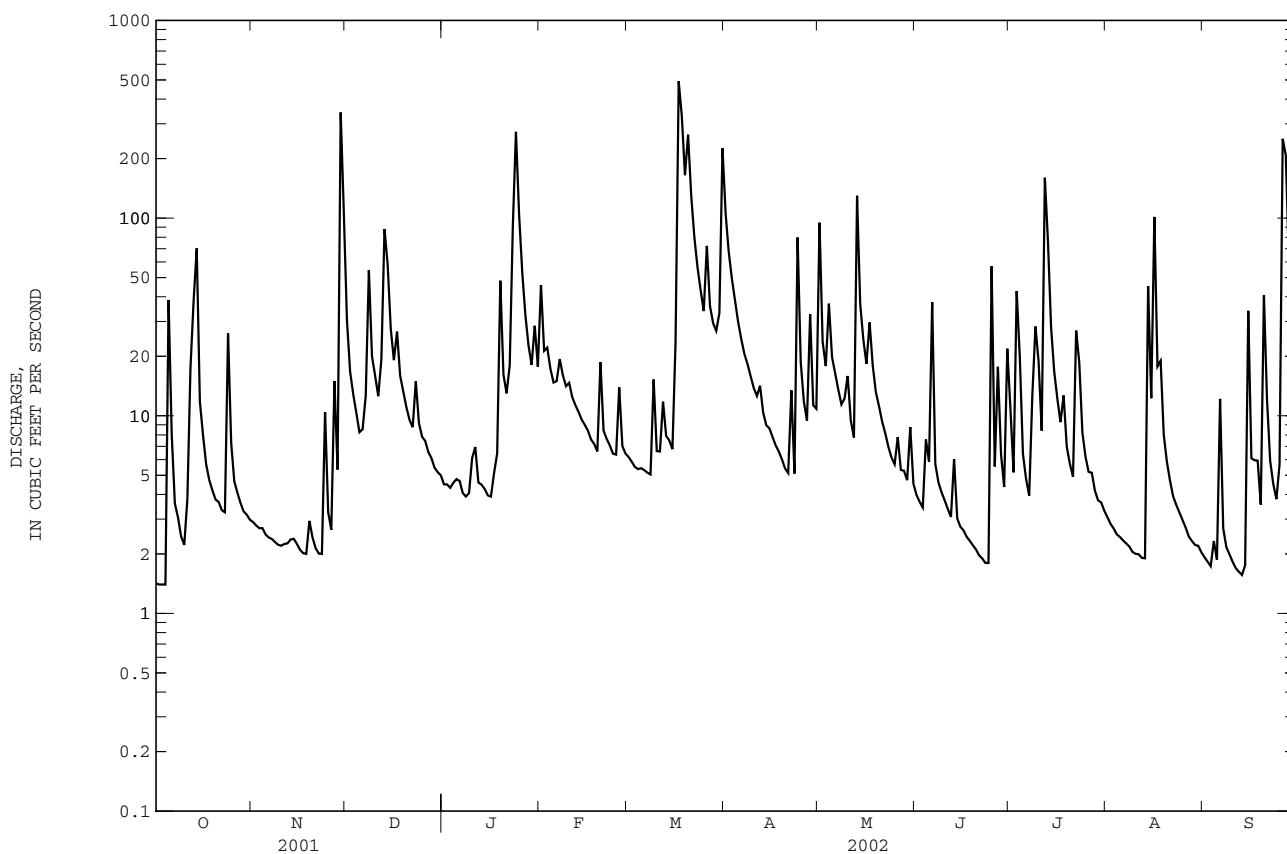
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	5396.1	7857.6	
ANNUAL MEAN	14.78	21.53	17.03
HIGHEST ANNUAL MEAN			29.6
LOWEST ANNUAL MEAN			3.80
HIGHEST DAILY MEAN	379	Feb 16	492
LOWEST DAILY MEAN	1.4	Jul 16	1.4
ANNUAL SEVEN-DAY MINIMUM	1.5	Jul 15	1.8
MAXIMUM PEAK FLOW			2160
MAXIMUM PEAK STAGE			8.09
INSTANTANEOUS LOW FLOW			1.4
ANNUAL RUNOFF (CFSM)	1.25		1.82
ANNUAL RUNOFF (INCHES)	17.01		24.77
10 PERCENT EXCEEDS	29		43
50 PERCENT EXCEEDS	5.7		7.0
90 PERCENT EXCEEDS	2.0		2.2

a Also occurred Oct. 2, 3, 4, 5.



CUMBERLAND RIVER BASIN

034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN

LOCATION.--Lat 36°10'02", long 86°46'35", Davidson County, Hydrologic Unit 05130202, on left bank at northwest corner of Woodland Street Bridge, at Nashville, 3.5 mi downstream from Mill Creek, and at mile 190.9.

DRAINAGE AREA.--12,860 mi², approximately.

PERIOD OF RECORD.--May 1992 to current year. October 1892 to September 1954, monthly and yearly discharges published in WSP 1306 and 1726, October 1986 to September 1991, gage height, published as "at Nashville." Gage height record collected in this vicinity since 1873 are contained in reports of U.S. Weather Bureau.

GAGE.--Data collection platform and acoustic velocity meter. Datum of gage is 368.17 ft above NGVD of 1929. Prior to fall of 1922 inclined and vertical staff gage at site 350 ft downstream and from fall of 1922 to Apr. 9, 1940, staff gage at site 400 ft downstream, both gages at same datum. Nov. 1, 1930, to Sept. 30, 1954, upper staff gage at former lock 1, 2.7 mi downstream was used as auxiliary gage. Prior to May 1992 at site 0.2 mi upstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203,000 ft³/s, Jan. 1, 1927, gage height 56.2 ft; minimum gage height observed after first filling of pool at dam 1, 6.1 ft, Oct. 19, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 100,000 ft³/s, March 18, maximum gage height, 35.60 ft, March 18, minimum daily discharge, 5,300 ft³/s, Nov. 11; minimum gage height, 16.50 ft, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8020	8300	24300	9300	53500	23000	79200	e28900	e15700	e9350	e13600	8420
2	7130	6690	20200	11500	41900	24900	83200	e33200	e11700	e9040	e11100	7810
3	8570	5660	16800	11700	39100	14900	75100	e35000	e9600	10600	e9370	7010
4	9870	5420	14200	11700	36900	7970	65200	e28400	e7200	11200	e8210	e9730
5	10600	6620	13600	7400	34600	12300	53400	e35700	e7520	12500	e11100	e11400
6	10100	6910	10600	7200	32900	11700	52900	e32100	e8870	11600	e10600	10300
7	8820	7070	8730	7840	33000	10600	54300	e27800	e11500	7060	e9870	8240
8	8990	7110	8820	8500	37600	13100	46300	e37100	e6220	7620	e11600	8380
9	8980	6760	11600	8680	32500	e13200	43200	e34400	e6220	6780	e11700	8350
10	7810	5610	20200	10000	25600	9090	43800	e33800	e11900	10200	e10400	7740
11	8750	5300	17200	10400	22700	7280	43200	e34300	e9120	16300	e8370	7290
12	10000	6730	16100	8730	27900	7080	44400	e33300	e9100	14700	e8510	9690
13	7790	6640	20100	7640	23400	8850	43000	e35000	e9070	12400	8340	8680
14	8570	6540	31800	6900	22400	10300	e31600	e50800	e13700	15800	8660	9560
15	18400	7590	28600	6390	23600	e12700	e26500	e41400	10600	e8880	10800	8950
16	15000	8400	18100	8070	27200	e13200	e18500	e41000	8760	e10900	12100	5970
17	9050	5730	16300	9830	22500	e40700	e17600	e41000	9260	e11900	18000	7400
18	8950	5310	12900	9280	18600	e100000	e15600	e49100	9180	e11800	11800	9310
19	10700	6170	13100	11600	17300	e98400	e17500	e47600	7940	e11300	7690	9920
20	7510	6640	11500	12600	18600	e86000	e17200	e36900	8330	e10300	7990	10800
21	6430	6160	10200	e12000	21700	e81700	e15300	e32000	8730	e7900	9630	10100
22	7120	7870	9580	e16000	20300	e81700	e14600	e31600	e8160	e9000	10000	9440
23	8340	6120	7890	23900	19900	e78700	e8420	e30400	e7020	8950	10000	9240
24	8570	5910	7900	76200	20100	e70400	e7880	e30300	e8500	10900	9500	9050
25	8380	7130	12200	94400	16900	e66500	e27600	e26200	9140	12900	9650	7470
26	8240	10500	14100	90200	12900	e60900	e23100	e18900	10200	13600	8990	12600
27	7330	9660	13000	76200	19200	e66100	e18200	e18800	10000	e12400	9680	33700
28	6210	10900	12600	64300	22600	e60500	e10300	e15000	10100	e7100	9040	27800
29	5650	17400	8730	52000	---	e51900	e16700	e16000	8200	e9730	10100	22700
30	7470	27400	7940	46500	---	e52800	e16600	e15500	6070	e8780	12700	13100
31	8000	---	8650	40400	---	58500	---	e15000	---	9030	10100	---
TOTAL	275350	240250	447540	777360	745400	1254970	1030400	986500	277610	330520	319200	330150
MEAN	8882	8008	14440	25080	26620	40480	34350	31820	9254	10660	10300	11000
MAX	18400	27400	31800	94400	53500	100000	83200	50800	15700	16300	18000	33700
MIN	5650	5300	7890	6390	12900	7080	7880	15000	6070	6780	7690	5970

e Estimated

034315005 CUMBERLAND RIVER AT WOODLAND STREET AT NASHVILLE, TN--Continued

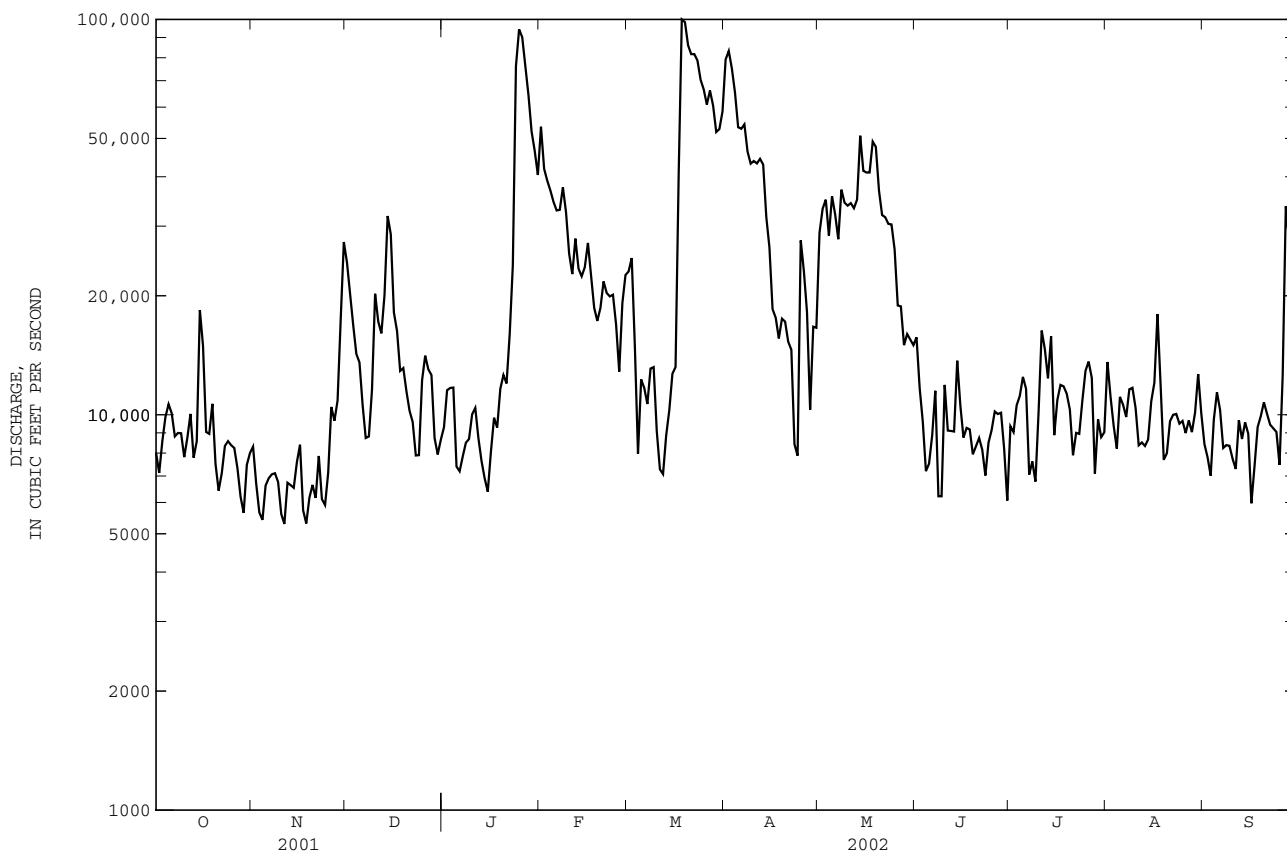
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	9905	11870	19430	28650	30180	37200	32680	22080	21310	16160	16160	14790
MAX	18380	22670	40930	43570	71760	82050	92860	47660	50810	35380	38630	53310
(WY)	1993	1996	1997	1994	1994	1994	1994	1998	1997	2002	2002	2002
MIN	6062	6813	7084	6978	10950	13280	10680	6530	8523	10440	10490	8176
(WY)	2001	2000	2000	2000	2000	2000	1995	2001	2001	2000	1993	1993

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR *WATER YEARS 1992 - 2002

ANNUAL TOTAL	4615570	7015250	
ANNUAL MEAN	12650	19220	
HIGHEST ANNUAL MEAN			21740
LOWEST ANNUAL MEAN			34940
HIGHEST DAILY MEAN	89200	Feb 17	100000
LOWEST DAILY MEAN	3220	May 20	5300
ANNUAL SEVEN-DAY MINIMUM	5770	May 15	6290
MAXIMUM PEAK FLOW			
MAXIMUM PEAK STAGE			35.60
10 PERCENT EXCEEDS	20200		43200
50 PERCENT EXCEEDS	10400		11100
90 PERCENT EXCEEDS	6170		7130

* Period of daily discharge only.



CUMBERLAND RIVER BASIN

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°10'59", long 86°49'56", Davidson County, Hydrologic Unit 05130202, on center pier of Nashville to Ashland City Railroad Bridge, 0.8 mi south of Bordeaux, 2.6 mi upstream of Whites Creek, and at mile 185.2.

DRAINAGE AREA.--12,862 mi², approximately.

PERIOD OF RECORD.--November 1996 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1996 to current year.

pH: November 1996 to current year.

WATER TEMPERATURE: November 1996 to current year.

DISSOLVED OXYGEN: November 1996 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1996.

REMARKS.--Flow regulated by Old Hickory Dam and other reservoirs above station. Periods of missing record were due to instrument malfunctions. Records for water temperature are excellent, specific conductance and pH are good, dissolved oxygen are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 303 microsiemens, March 14, 2000; minimum, 171 microsiemens, June 4, 1998.

pH: Maximum, 9.0 units, Feb. 11, 2001; minimum, 6.6 units, Nov. 30, 1997, June 11, 1997.

WATER TEMPERATURE: Maximum, 27.8°C, July 14, 2000; minimum, 4.4°C, Feb. 3, 2000.

DISSOLVED OXYGEN: Maximum, 15.9 mg/L, Feb. 12, 2001; minimum, 3.6 mg/L, Oct. 26, 2001.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 293 microsiemens, Jan. 9; minimum, 186 microsiemens, Apr. 15.

pH: Maximum, 8.8 units, Mar. 14; minimum, 7.4 units, several days throughout the year.

WATER TEMPERATURE: Maximum, 27.4°C, Aug. 9; minimum, 5.7°C, Jan. 8.

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Mar. 15; minimum, 4.2 mg/L, July 8, 10.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	212	208	210	237	225	232	265	250	256	279	269	274
2	217	208	211	240	229	234	255	249	251	---	264	268
3	244	211	222	238	227	231	258	254	255	280	268	271
4	229	209	220	245	230	239	260	252	255	279	268	274
5	227	204	213	235	228	230	259	252	255	279	271	275
6	226	204	215	244	229	233	260	254	257	284	269	276
7	215	209	212	246	234	238	267	254	262	272	269	270
8	218	209	212	249	234	238	282	255	265	278	267	268
9	231	211	217	251	235	240	285	256	267	293	267	278
10	228	212	220	246	235	239	266	243	252	267	259	265
11	221	212	214	249	236	245	259	242	249	273	253	263
12	228	213	220	244	231	237	261	252	257	256	251	253
13	238	214	221	247	232	236	267	257	262	255	248	251
14	235	221	226	253	238	244	268	255	262	248	244	246
15	237	217	226	253	237	243	260	250	255	254	241	245
16	233	214	221	246	235	241	263	251	257	253	235	241
17	240	219	232	244	235	239	265	246	256	245	232	238
18	248	231	240	250	235	241	266	255	262	236	230	232
19	244	222	235	244	228	234	274	257	267	245	227	233
20	233	226	230	253	229	235	269	261	266	255	224	234
21	238	219	226	253	230	240	274	259	267	227	219	222
22	238	216	223	253	236	245	275	263	268	258	227	242
23	241	217	229	249	237	243	280	268	275	249	228	240
24	243	218	234	249	231	239	275	261	268	239	217	226
25	239	213	224	251	231	242	273	259	268	256	239	251
26	239	223	232	234	230	231	268	254	261	253	228	238
27	233	224	230	248	230	237	266	257	262	253	239	248
28	240	224	233	255	235	242	270	259	265	253	242	247
29	239	223	229	260	236	248	275	261	268	254	244	247
30	240	221	226	257	239	245	279	267	270	252	239	243
31	240	223	231	---	---	---	281	270	276	240	223	235
MONTH	248	204	224	260	225	239	285	242	262	293	217	251

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	229	222	224	224	220	222	214	210	211	228	199	213
2	230	222	228	223	222	223	214	206	211	230	211	218
3	222	216	218	227	223	225	213	206	209	234	219	228
4	222	216	219	236	227	229	217	213	215	236	224	231
5	222	217	221	254	229	237	216	204	211	237	224	230
6	224	204	215	246	232	238	209	193	200	237	217	223
7	230	210	220	236	222	230	202	193	196	237	222	229
8	233	215	225	232	220	225	205	195	198	236	218	228
9	234	220	225	224	215	218	209	195	200	231	215	221
10	226	220	222	222	218	219	205	194	197	232	221	227
11	249	221	230	225	221	223	203	190	194	225	212	218
12	236	223	228	235	225	227	201	188	192	224	211	215
13	243	224	229	235	225	227	198	187	191	223	203	212
14	243	228	234	228	224	226	194	187	190	218	205	211
15	243	229	234	228	224	226	188	186	187	221	200	211
16	242	228	232	234	224	229	205	188	193	221	200	212
17	239	230	233	250	215	230	205	189	193	218	201	211
18	237	228	230	228	214	221	200	189	194	219	209	215
19	249	229	234	232	221	226	203	193	196	214	202	208
20	242	232	236	237	221	230	200	191	194	213	200	207
21	240	232	234	242	237	241	196	193	195	216	201	206
22	245	231	236	240	209	229	195	192	193	215	202	205
23	245	232	235	209	201	203	208	193	196	220	204	214
24	232	228	231	209	201	206	210	194	205	220	207	213
25	237	228	229	213	209	212	220	191	207	220	206	210
26	244	229	236	217	204	212	210	191	198	220	206	211
27	229	222	226	210	203	206	222	203	210	208	204	206
28	239	222	231	210	200	208	217	200	207	212	201	205
29	---	---	---	214	205	210	230	212	217	214	199	203
30	---	---	---	215	205	208	221	206	211	216	199	204
31	---	---	---	219	211	215	---	---	---	206	199	202
MONTH	249	204	228	254	200	222	230	186	200	237	199	214

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	210	200	204	219	210	213	207	201	204	201	196	198
2	207	203	204	219	212	216	221	197	204	204	197	201
3	215	205	209	---	---	---	215	196	202	199	195	197
4	222	208	213	---	---	---	206	197	202	201	197	199
5	221	212	216	---	---	---	204	197	200	228	197	203
6	222	214	219	---	---	---	212	198	201	214	198	202
7	227	218	223	---	---	---	215	202	207	214	199	204
8	226	221	224	212	210	211	209	198	204	204	195	200
9	223	219	221	223	210	213	205	194	199	201	194	198
10	225	218	222	216	---	---	206	194	199	201	194	197
11	242	217	224	---	---	---	203	197	199	202	196	200
12	226	215	221	---	---	---	204	194	198	199	190	196
13	227	214	218	---	---	---	204	196	199	201	195	197
14	222	214	218	---	---	---	204	197	201	202	193	196
15	220	215	218	---	---	---	206	192	199	202	196	198
16	222	216	219	---	---	---	204	195	199	205	197	200
17	222	216	218	---	---	---	201	198	199	205	198	201
18	227	215	218	215	208	210	202	200	201	205	197	202
19	225	215	217	219	206	211	206	202	204	205	193	199
20	222	216	218	209	205	207	207	202	205	201	192	197
21	231	216	219	207	197	204	207	202	204	206	194	201
22	222	216	219	210	206	208	205	198	202	206	195	201
23	216	215	216	212	206	208	206	196	201	201	195	198
24	217	212	214	211	205	208	207	197	203	229	195	203
25	216	---	---	214	203	210	204	195	200	219	197	203
26	---	---	---	221	205	211	203	195	199	220	200	207
27	---	---	---	208	199	202	204	196	200	221	200	208
28	---	---	---	206	198	202	204	197	200	220	200	213
29	---	---	---	206	198	204	203	195	198	219	196	210
30	---	---	---	208	200	204	202	196	199	220	212	215
31	---	---	---	208	199	204	199	196	198	---	---	---
MONTH	242	200	217	223	197	208	221	192	201	229	190	201

CUMBERLAND RIVER BASIN

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.6	8.1	8.0	7.6	7.6	7.5	8.0	7.9	7.6	7.5	8.4	8.2
2	8.4	8.2	7.9	7.6	7.6	7.6	8.0	7.9	7.7	7.6	8.3	8.2
3	8.3	7.8	8.0	7.7	7.7	7.6	8.0	8.0	7.6	7.6	8.3	8.2
4	8.1	7.7	7.9	7.5	7.7	7.6	8.1	8.0	7.6	7.6	8.5	8.3
5	8.4	7.8	7.9	7.6	7.7	7.6	8.1	8.0	7.6	7.6	8.5	8.3
6	8.4	7.8	8.1	7.6	7.8	7.7	8.1	8.0	7.7	7.6	8.5	8.2
7	8.3	7.8	8.0	7.8	7.7	7.6	8.1	8.0	7.7	7.5	8.6	8.4
8	8.2	7.6	8.2	7.9	7.7	7.5	8.0	8.0	7.6	7.5	8.6	8.4
9	8.3	8.0	8.1	7.9	7.6	7.5	8.0	7.9	7.6	7.5	8.5	8.4
10	8.3	7.8	8.1	7.9	7.6	7.5	8.1	8.0	7.6	7.6	8.6	8.4
11	8.3	7.8	8.0	7.8	7.6	7.5	8.1	8.0	7.6	7.6	8.6	8.5
12	7.9	7.6	8.2	7.8	7.6	7.5	8.1	8.0	7.9	7.6	8.5	8.3
13	7.7	7.5	8.2	7.8	7.5	7.5	8.2	8.0	7.9	7.8	8.5	8.3
14	7.6	7.5	7.9	7.7	7.6	7.5	8.3	8.0	7.8	7.7	8.8	8.4
15	7.7	7.5	8.0	7.7	7.6	7.5	8.4	8.3	7.8	7.8	8.7	8.6
16	7.6	7.5	8.0	7.8	7.6	7.6	8.5	8.3	7.9	7.8	8.6	8.4
17	7.6	7.5	7.9	7.6	7.6	7.6	8.4	8.2	8.0	7.8	8.4	7.7
18	7.6	7.4	7.9	7.7	7.7	7.6	8.4	8.2	8.0	7.9	8.0	7.7
19	7.8	7.5	8.0	7.7	7.7	7.6	8.3	8.0	8.0	7.9	7.7	7.4
20	8.0	7.6	8.0	7.8	7.7	7.7	8.2	8.0	8.2	8.0	7.7	7.4
21	8.3	7.8	8.2	7.8	7.8	7.7	8.3	8.2	8.2	8.1	7.7	7.6
22	8.2	7.8	7.9	7.8	7.8	7.7	8.3	8.1	8.2	8.1	7.6	7.6
23	8.0	7.5	7.9	7.8	7.8	7.8	8.2	8.0	8.2	8.1	7.6	7.6
24	8.2	7.5	8.0	7.7	7.8	7.7	8.1	7.9	8.2	8.2	7.6	7.6
25	8.2	7.7	8.0	7.7	7.8	7.7	7.9	7.7	8.3	8.2	7.6	7.6
26	8.0	7.7	7.9	7.8	7.8	7.7	7.7	7.6	8.2	8.2	7.7	7.6
27	7.9	7.6	7.8	7.6	7.8	7.8	7.7	7.7	8.2	8.2	7.7	7.6
28	7.9	7.6	7.6	7.6	7.9	7.8	7.7	7.7	8.4	8.2	7.7	7.6
29	8.0	7.6	7.6	7.5	7.9	7.8	7.7	7.6	---	---	7.7	7.6
30	8.3	7.7	7.6	7.5	7.9	7.8	7.6	7.6	---	---	7.7	7.6
31	8.0	7.8	---	---	7.9	7.8	7.6	7.6	---	---	7.7	7.6
MONTH	8.6	7.4	8.2	7.5	7.9	7.5	8.5	7.6	8.4	7.5	8.8	7.4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	7.7	7.6	8.0	7.8	8.2	7.7	7.9	7.6	---	---	---	---
2	7.7	7.6	7.9	7.7	7.9	7.6	7.9	7.6	---	---	---	---
3	7.7	7.6	7.7	7.7	7.8	7.6	---	---	---	---	---	---
4	7.7	7.7	7.7	7.6	7.8	7.6	---	---	---	---	---	---
5	7.7	7.7	7.7	7.6	7.7	7.5	---	---	---	---	---	---
6	7.7	7.6	7.6	7.5	7.6	7.5	---	---	---	---	---	---
7	7.7	7.6	7.5	7.5	7.5	7.4	---	---	---	---	---	---
8	7.7	7.6	7.6	7.5	7.6	7.4	7.7	7.5	---	---	---	---
9	7.7	7.6	7.6	7.5	7.7	7.6	7.6	7.4	---	---	---	---
10	7.7	7.6	7.6	7.5	7.8	7.6	7.5	7.4	---	---	---	---
11	7.7	7.7	7.8	7.6	7.6	7.5	7.7	7.6	---	---	---	---
12	7.8	7.7	7.7	7.6	7.7	7.5	7.7	---	---	---	---	---
13	7.8	7.7	7.6	7.5	7.6	7.5	---	---	---	---	---	---
14	7.8	7.7	7.6	7.5	7.6	7.5	---	---	---	---	---	---
15	7.9	7.8	7.6	7.6	7.6	7.4	---	---	---	---	---	---
16	8.1	7.8	7.6	7.6	7.5	7.4	---	---	---	---	---	---
17	8.1	7.9	7.6	7.5	7.6	7.4	---	---	---	---	---	---
18	8.1	7.8	7.6	7.5	7.7	7.4	---	---	---	---	---	---
19	8.2	7.8	7.7	7.6	7.8	7.6	---	---	---	---	---	---
20	8.2	7.8	7.6	7.6	7.8	7.5	---	---	---	---	---	---
21	8.1	7.9	7.6	7.5	7.9	7.6	---	---	---	---	---	---
22	8.1	7.8	7.7	7.5	7.6	7.6	---	---	---	---	---	---
23	8.0	7.6	7.8	7.6	7.7	7.6	---	---	---	---	---	---
24	7.9	7.6	7.8	7.7	7.8	7.5	---	---	---	---	---	---
25	8.1	7.5	7.9	7.7	7.8	7.6	---	---	---	---	---	---
26	8.3	7.8	8.0	7.8	7.8	7.6	---	---	---	---	---	---
27	8.1	8.0	8.0	7.8	7.8	7.6	---	---	---	---	---	---
28	8.1	7.9	8.0	7.8	7.8	7.6	---	---	---	---	---	---
29	8.1	7.8	7.8	7.7	7.8	7.6	---	---	---	---	---	---
30	8.2	7.8	7.9	7.6	8.0	7.6	---	---	---	---	---	---
31	---	---	8.1	7.6	---	---	---	---	---	---	---	---
MONTH	8.3	7.5	8.1	7.5	8.2	7.4	7.9	7.4	---	---	---	---

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	20.4	19.7	20.0	16.0	15.7	15.9	14.1	13.6	13.8	8.1	7.6	7.8
2	20.1	19.6	19.9	16.4	15.9	16.2	13.8	13.5	13.7	7.4	7.1	7.2
3	20.0	19.3	19.8	16.7	16.3	16.5	13.6	13.4	13.5	7.1	6.4	6.9
4	20.0	19.3	19.6	16.9	16.4	16.6	13.7	13.5	13.6	6.6	6.3	6.5
5	20.0	19.6	19.8	16.4	15.7	16.1	13.8	13.5	13.7	6.6	6.2	6.4
6	20.0	19.3	19.6	15.9	15.4	15.7	13.9	13.6	13.8	6.7	6.2	6.4
7	19.3	18.6	19.0	15.7	15.5	15.6	14.1	13.7	13.9	6.2	6.0	6.1
8	18.7	18.2	18.5	15.8	15.4	15.6	14.2	13.9	14.0	6.0	5.7	5.9
9	18.7	18.4	18.5	15.8	15.6	15.7	14.2	13.2	13.7	6.2	6.0	6.1
10	19.1	18.3	18.7	15.8	15.4	15.6	13.2	12.7	12.8	6.4	6.1	6.3
11	19.0	18.7	18.8	15.7	15.2	15.4	12.8	12.6	12.7	7.1	6.4	6.7
12	18.9	18.7	18.8	15.4	15.0	15.2	12.9	12.8	12.8	7.0	6.6	6.8
13	19.0	18.7	18.9	15.2	14.9	15.0	13.3	12.9	13.1	6.9	6.6	6.8
14	19.3	18.9	19.1	15.2	14.8	15.0	13.3	13.0	13.1	7.2	6.9	7.0
15	19.1	18.6	18.8	15.1	14.9	15.0	13.0	12.8	12.9	7.2	7.0	7.1
16	18.6	18.1	18.3	15.1	14.9	15.0	13.1	12.9	13.0	7.4	7.1	7.2
17	18.1	17.5	17.8	15.1	14.9	15.0	13.5	13.1	13.3	7.5	7.3	7.4
18	17.5	17.1	17.3	15.4	14.9	15.1	13.3	13.1	13.2	7.6	7.4	7.5
19	17.4	17.0	17.2	15.2	14.8	14.9	13.1	12.4	12.8	7.5	7.2	7.4
20	17.7	17.0	17.3	14.8	14.4	14.5	12.4	12.0	12.3	7.4	7.1	7.2
21	17.6	17.2	17.4	14.4	14.0	14.2	12.1	11.8	12.0	7.6	7.4	7.5
22	17.7	17.5	17.6	14.0	13.6	13.8	11.9	11.5	11.7	7.7	7.4	7.5
23	18.0	17.6	17.8	13.9	13.6	13.7	11.9	11.5	11.8	8.4	7.5	8.0
24	18.6	17.9	18.2	14.1	13.9	14.0	11.6	11.0	11.3	9.3	8.2	8.8
25	18.5	17.9	18.3	14.5	14.0	14.2	11.0	10.2	10.6	8.2	7.5	7.8
26	17.9	17.0	17.5	14.2	14.0	14.1	10.2	9.7	10.0	9.3	8.2	8.9
27	17.0	16.2	16.6	14.6	14.1	14.4	9.7	9.4	9.6	9.2	8.9	9.0
28	16.2	15.7	16.0	14.5	14.3	14.4	9.5	9.0	9.3	9.6	9.1	9.3
29	16.0	15.5	15.7	14.6	14.3	14.4	9.2	9.0	9.1	10.0	9.6	9.8
30	15.7	15.4	15.6	14.6	14.0	14.2	9.0	8.5	8.6	10.5	10.0	10.3
31	16.0	15.4	15.8	---	---	---	8.5	8.1	8.2	11.3	10.5	10.8
MONTH	20.4	15.4	18.1	16.9	13.6	15.0	14.2	8.1	12.2	11.3	5.7	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.4	11.0	11.3	8.6	8.1	8.4	11.3	10.9	11.1	18.4	17.9	18.1
2	11.0	10.6	10.7	8.6	8.4	8.5	11.8	11.2	11.5	18.1	17.6	17.8
3	10.7	10.2	10.4	8.6	8.1	8.4	12.0	11.7	11.8	17.9	17.4	17.6
4	10.2	9.7	10	8.2	7.9	8.1	11.8	11.4	11.6	17.5	17.1	17.3
5	9.7	9.2	9.4	8.3	7.6	7.9	11.7	11.3	11.6	17.8	17.0	17.4
6	9.2	8.8	9.0	8.6	7.9	8.2	11.9	11.4	11.7	17.7	17.4	17.5
7	8.8	8.4	8.6	8.9	8.3	8.6	12.0	11.7	11.8	18.1	17.4	17.8
8	8.6	8.3	8.4	9.4	8.7	9.1	12.2	11.9	12.1	18.6	17.8	18.1
9	8.9	8.4	8.6	9.5	9.2	9.4	12.4	12.2	12.3	18.2	17.9	18.1
10	9.1	8.8	8.9	9.6	9.3	9.5	12.8	12.1	12.4	18.0	17.6	17.9
11	9.1	8.9	9.0	9.8	9.3	9.6	13.1	12.5	12.8	18.1	17.5	17.8
12	9.0	8.7	8.9	10.0	9.5	9.7	13.7	13.1	13.3	18.1	17.7	17.9
13	9.0	8.7	8.8	10.3	10.0	10.1	14.0	13.6	13.8	17.9	17.5	17.8
14	8.8	8.5	8.7	10.6	10.1	10.4	14.5	14.0	14.2	17.5	17.0	17.2
15	8.8	8.7	8.8	11.3	10.5	10.9	15.0	14.4	14.7	17.0	16.7	16.9
16	9.1	8.7	8.9	11.5	11.2	11.3	15.9	15.0	15.5	17.3	17.0	17.0
17	9.1	8.8	8.9	12.2	11.1	11.3	16.4	15.8	16.1	17.3	17.1	17.2
18	9.0	8.7	8.9	12.2	11.6	11.7	16.6	16.2	16.3	17.1	16.5	16.8
19	9.1	9.0	9.0	12.0	11.5	11.7	17.2	16.3	16.6	16.5	15.9	16.1
20	9.8	9.1	9.5	12.2	12.0	12.1	17.5	16.5	17.0	16.1	15.6	15.8
21	10.0	9.5	9.7	12.1	11.9	12.0	17.8	17.3	17.5	16.3	15.8	16.0
22	9.7	9.5	9.6	11.9	11.1	11.5	18.2	17.5	17.8	16.4	15.9	16.1
23	9.7	9.4	9.6	11.3	10.9	11.1	17.6	16.7	17.1	16.9	16.3	16.6
24	9.9	9.5	9.7	11.3	11.0	11.2	17.6	17.1	17.3	17.0	16.7	16.9
25	10.0	9.7	9.9	11.2	10.8	11.1	18.0	17.2	17.5	17.4	16.8	17.1
26	9.9	9.3	9.7	11.3	11.0	11.2	18.0	17.3	17.7	17.8	17.4	17.6
27	9.3	8.5	8.8	11.0	10.5	10.7	17.5	16.8	17.2	18.3	17.5	17.9
28	8.6	8.3	8.4	10.9	10.3	10.6	18.1	17.4	17.8	18.7	18.2	18.4
29	---	---	---	11.5	10.8	11.1	18.5	17.9	18.1	19.1	18.6	18.9
30	---	---	---	11.5	11.3	11.4	18.1	17.7	17.9	19.8	19.1	19.4
31	---	---	---	11.3	11.1	11.2	---	---	---	20.3	19.1	19.6
MONTH	11.4	8.3	9.3	12.2	7.6	10.3	18.5	10.9	14.8	20.3	15.6	17.5

CUMBERLAND RIVER BASIN

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.7	19.6	20.1	26.9	26.4	26.6	26.4	25.6	25.9	26.6	25.9	26.1
2	20.8	19.8	20.3	27.1	26.6	26.8	26.9	25.6	26.1	26.3	25.6	25.8
3	21.3	20.4	20.8	---	---	---	27.1	26.1	26.8	26.6	25.6	25.8
4	21.7	20.9	21.2	---	---	---	26.8	26.0	26.4	26.3	25.5	25.8
5	22.1	21.2	21.6	---	---	---	27.2	26.4	26.7	25.6	24.5	25.1
6	21.9	21.5	21.7	---	---	---	26.6	25.8	26.3	24.9	24.2	24.5
7	21.8	21.0	21.6	---	---	---	25.9	25.0	25.5	25.1	24.6	24.9
8	22.7	20.9	21.6	26.9	26.9	27.2	26.7	25.2	25.9	25.8	24.8	25.2
9	23.3	22.7	22.9	27.3	26.7	27.0	27.4	26.3	26.6	25.3	24.8	24.9
10	24.2	23.1	23.5	26.9	26.5	26.8	26.8	26.4	26.6	25.4	24.7	24.9
11	23.7	22.9	23.4	26.5	26.2	26.3	26.6	26.3	26.4	25.2	24.5	24.7
12	24.4	23.0	23.8	26.8	26.5	26.7	27.2	26.4	26.7	24.9	24.0	24.5
13	24.6	23.8	24.1	---	---	---	26.4	26.0	26.1	24.9	23.9	24.4
14	24.0	23.6	23.9	---	---	---	26.6	26.0	26.2	25.0	24.7	24.9
15	24.0	22.9	23.4	---	---	---	26.3	26.0	26.2	25.4	24.9	25.1
16	23.7	23.2	23.5	---	---	---	26.2	25.7	25.9	25.2	24.9	25.1
17	24.3	23.0	23.6	---	---	---	26.1	25.4	25.8	25.0	24.5	24.8
18	25.0	24.2	24.6	26.7	26.1	26.4	26.3	25.9	26.1	24.5	24.2	24.4
19	25.2	24.9	25.1	26.1	25.8	26.0	26.1	25.6	25.9	24.8	24.2	24.4
20	25.6	25.1	25.4	26.5	25.8	26.1	26.6	25.9	26.1	24.9	24.6	24.8
21	26.0	25.2	25.5	26.9	26.1	26.3	26.9	25.8	26.1	24.8	24.4	24.6
22	25.9	25.1	25.4	26.7	26.2	26.4	26.9	25.8	26.2	24.6	23.7	24.2
23	25.7	25.0	25.2	26.9	26.4	26.6	26.3	25.9	26.1	23.8	23.0	23.6
24	25.6	24.8	25.2	26.9	26.0	26.4	26.2	25.7	25.9	23.0	22.6	22.8
25	25.6	25.2	25.4	27.1	26.2	26.7	26.0	25.4	25.7	22.6	22.2	22.5
26	25.8	25.3	25.5	27.3	26.5	26.8	25.7	25.1	25.3	22.2	20.9	21.9
27	25.9	25.5	25.7	26.9	26.4	26.7	25.6	25.1	25.3	21.5	20.9	21.3
28	25.8	25.5	25.6	26.9	26.4	26.7	25.9	25.1	25.5	21.5	20.6	21.0
29	26.0	25.6	25.8	26.8	26.2	26.5	26.0	25.4	25.7	21.5	20.6	21.0
30	27.0	26.0	26.4	26.4	25.5	25.8	26.0	25.3	25.6	21.1	20.9	21.0
31	---	---	---	26.4	25.6	26.0	26.3	25.4	25.8	---	---	---
MONTH	27.0	19.6	23.7	27.3	25.5	26.5	27.4	25.0	26.0	26.6	20.6	24.1

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.5	8.0	8.8	9.9	8.2	9.4	9.4	9.0	9.2	11.6	11.0	11.3
2	9.0	8.3	8.6	9.8	8.5	9.3	9.4	9.2	9.3	11.9	11.3	11.6
3	8.8	7.3	8.3	9.8	8.3	9.4	9.6	9.3	9.4	12.0	11.6	11.8
4	8.5	7.1	7.7	9.7	7.7	9.0	9.6	9.4	9.5	12.3	11.7	12.0
5	8.6	7.6	8.2	9.8	8.5	9.3	9.7	9.5	9.6	12.6	12.0	12.3
6	8.7	7.3	8.1	10.0	8.4	9.2	9.9	9.6	9.7	12.6	12.0	12.4
7	8.6	8.0	8.2	9.4	8.5	8.9	9.7	9.4	9.5	12.7	12.4	12.5
8	8.8	7.8	8.3	10.2	8.8	9.5	9.5	9.0	9.2	12.8	12.5	12.7
9	8.7	8.1	8.4	10.1	9.3	9.8	9.4	8.9	9.1	12.8	12.1	12.5
10	8.6	7.4	8.0	10.3	9.7	10.1	9.3	9.0	9.2	13.0	12.6	12.8
11	8.5	7.6	8.0	10.2	9.3	9.6	9.3	9.1	9.2	12.8	12.5	12.6
12	---	7.0	---	10.8	9.3	10.1	9.2	9.0	9.1	13.0	12.5	12.7
13	---	---	---	10.8	9.5	10.3	9.1	9.0	9.1	13.1	12.4	12.8
14	---	---	---	10.1	9.2	9.6	9.3	9.1	9.2	13.2	12.6	12.9
15	---	---	---	10.3	9.4	9.9	9.6	9.3	9.5	13.5	13.0	13.2
16	---	---	---	10.2	9.5	9.9	9.6	9.5	9.5	13.9	13.1	13.5
17	---	---	---	10.1	9.2	9.7	9.5	8.8	9.1	13.6	13.1	13.3
18	---	6.7	---	10.6	9.6	10.0	9.0	8.8	8.9	13.9	13.2	13.5
19	8.9	6.8	7.5	10.0	9.7	9.9	9.0	8.8	8.9	13.7	13.1	13.4
20	9.4	8.0	8.7	10.2	9.1	9.7	9.1	8.8	9.0	13.7	13.1	13.3
21	10.6	8.7	9.7	11.4	9.1	9.9	9.5	9.0	9.3	14.1	13.5	13.8
22	10.4	8.6	9.8	9.9	9.1	9.4	9.7	9.3	9.5	14.4	13.4	13.9
23	9.9	7.6	8.8	9.8	9.3	9.6	9.8	9.3	9.5	13.9	12.9	13.3
24	10.0	7.4	8.2	10.3	9.2	9.6	9.8	9.6	9.7	13.9	12.6	13.1
25	10.0	8.4	9.7	10.1	9.2	9.7	10.1	9.6	9.8	14.2	13.3	14.0
26	9.7	8.4	9.1	9.9	9.4	9.6	10.1	9.7	9.9	13.3	12.5	12.7
27	9.7	8.4	9.0	9.7	9.0	9.4	10.5	10.0	10.3	12.8	12.2	12.6
28	9.5	7.7	8.8	9.1	8.7	8.9	10.7	10.3	10.5	12.8	12.1	12.3
29	9.8	8.9	9.5	9.0	8.5	8.9	11.0	10.5	10.8	12.2	11.6	11.7
30	11.1	8.8	10.2	9.2	8.6	9.0	11.1	10.6	10.9	11.7	11.5	11.6
31	9.9	9.0	9.6	---	---	---	11.3	10.8	11.1	11.6	11.3	11.5
MONTH	11.1	6.7	8.7	11.4	7.7	9.6	11.3	8.8	9.6	14.4	11.0	12.7

03431514 CUMBERLAND RIVER NEAR BORDEAUX, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.4	11.1	11.3	13.0	12.5	12.8	11.3	10.6	11.1	10.7	10.0	10.3
2	11.7	11.3	11.6	12.8	12.4	12.6	11.2	10.9	11.0	10.3	10.0	10.2
3	11.5	11.3	11.4	12.8	12.3	12.6	11.0	10.8	10.9	10.4	10.0	10.2
4	11.5	11.2	11.3	13.5	12.7	13.1	11.1	10.8	10.9	10.7	10.1	10.4
5	11.7	11.5	11.6	13.8	12.9	13.3	10.8	10.3	10.4	11.2	10.3	10.8
6	11.8	11.6	11.7	14.3	13.2	13.7	10.7	10.3	10.6	11.0	10.4	10.8
7	11.9	11.7	11.8	14.5	13.6	14.1	10.8	10.6	10.7	10.9	10.2	10.6
8	11.9	11.7	11.8	14.6	13.7	14.1	10.8	10.5	10.7	11.7	10.5	11.0
9	11.8	11.7	11.7	14.1	13.5	13.7	10.6	10.4	10.5	11.8	10.9	11.2
10	11.8	11.7	11.8	14.2	13.3	13.8	10.8	10.5	10.7	11.1	10.0	10.8
11	12.0	11.8	11.9	14.4	13.5	14.0	11.2	10.7	10.9	11.2	10.7	10.9
12	12.4	11.9	12.0	14.2	13.6	13.8	10.9	10.7	10.8	10.8	10.1	10.5
13	13.4	12.4	12.9	14.2	13.4	13.8	10.8	10.6	10.7	---	9.7	---
14	13.8	13.4	13.6	14.6	13.4	14.1	10.8	10.6	10.7	11.1	9.7	10.3
15	13.4	---	---	15.3	14.4	14.9	10.9	10.6	10.8	10.3	9.2	9.8
16	---	---	---	14.9	13.8	14.5	11.3	10.7	11.0	9.9	8.9	9.3
17	---	---	---	13.9	---	13.9	12.5	10.8	11.4	9.2	8.5	8.9
18	---	---	---	---	---	---	12.1	11.1	11.7	9.1	7.8	8.4
19	---	---	---	---	---	---	12.2	11.2	11.6	9.9	9.1	9.5
20	11.9	11.6	11.7	10.8	10.6	10.7	11.9	10.9	11.5	9.6	8.9	9.2
21	12.0	11.5	11.8	10.8	10.7	10.7	11.6	10.9	11.3	9.3	8.6	9.0
22	12.2	11.7	11.9	10.9	10.7	10.8	11.2	10.6	10.9	9.7	8.6	9.3
23	12.2	11.7	11.9	10.7	10.5	10.6	10.8	9.9	10.2	10.0	8.9	9.5
24	12.3	11.9	12.1	10.6	10.3	10.5	10.5	9.7	10.1	10.3	9.2	9.9
25	12.5	11.9	12.2	10.8	10.5	10.7	10.0	9.7	9.8	10.6	9.6	10.2
26	12.4	12.1	12.2	10.6	10.4	10.5	---	---	---	10.6	9.7	10.2
27	12.2	12.0	12.1	11.3	10.5	10.9	---	---	---	10.7	10.0	10.4
28	12.8	12.1	12.4	11.0	10.9	11.0	---	---	---	10.4	9.7	10.0
29	---	---	---	10.9	10.6	10.7	10.7	9.8	10.4	9.8	9.0	9.5
30	---	---	---	10.7	10.6	10.7	11.0	9.7	10.3	9.8	8.9	9.4
31	---	---	---	10.7	10.5	10.6	---	---	---	10.1	8.5	9.2
MONTH	13.8	11.1	11.9	15.3	10.3	12.5	12.5	9.7	10.8	11.8	7.8	10.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.4	9.2	9.7	7.3	6.5	6.9	---	---	---	---	---	---
2	9.7	8.8	9.3	7.6	5.8	6.9	---	---	---	---	---	---
3	9.3	8.6	8.9	---	---	---	---	---	---	---	---	---
4	9.1	8.3	8.7	---	---	---	---	---	---	---	---	---
5	8.9	8.2	8.5	---	---	---	---	---	---	---	---	---
6	8.2	7.4	7.8	---	---	---	---	---	---	---	---	---
7	7.4	7.0	7.2	---	---	---	---	---	---	---	---	---
8	7.6	6.9	7.2	5.5	4.2	5.2	---	---	---	---	---	---
9	7.9	7.3	7.6	5.1	4.5	4.7	---	---	---	---	---	---
10	8.2	7.3	7.7	4.6	4.2	4.4	---	---	---	---	---	---
11	7.6	6.7	7.1	6.6	6.2	6.4	---	---	---	---	---	---
12	7.1	6.4	6.9	6.9	6.5	6.6	---	---	---	---	---	---
13	6.8	6.2	6.6	---	---	---	---	---	---	---	---	---
14	6.7	6.1	6.4	---	---	---	---	---	---	---	---	---
15	6.8	5.9	6.3	---	---	---	---	---	---	---	---	---
16	6.6	6.1	6.3	---	---	---	---	---	---	---	---	---
17	7.1	5.8	6.6	---	---	---	---	---	---	---	---	---
18	7.6	5.6	7.1	---	---	---	---	---	---	---	---	---
19	7.9	7.0	7.7	---	---	---	---	---	---	---	---	---
20	8.0	6.7	7.6	---	---	---	---	---	---	---	---	---
21	8.1	6.8	7.5	---	---	---	---	---	---	---	---	---
22	7.1	6.7	6.9	---	---	---	---	---	---	---	---	---
23	7.5	6.6	7.0	---	---	---	---	---	---	---	---	---
24	7.0	6.4	6.6	---	---	---	---	---	---	---	---	---
25	7.3	7.0	7.1	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	10.4	5.6	7.5	7.6	4.2	5.9	---	---	---	---	---	---

CUMBERLAND RIVER BASIN

03431599 WHITES CREEK NEAR BORDEAUX, TN

LOCATION.--Lat 36°13'03", long 86°49'13", Davidson County, Hydrologic Unit 05130202, on right bank on downstream side of bridge on Buena Vista Pike, 0.4 mi downstream from Ewing Creek, 1.8 mi northeast of Bordeaux, 2.1 mi above Drakes Branch, and at mile 6.1.

DRAINAGE AREA.--51.3 mi².

PERIOD OF RECORD.--October 1964 to April 1975 (published as at Tucker Road, near Bordeaux), August 1993 to current year. Occasional low-flow measurements, water years 1962-64.

GAGE.--Data collection platform. Datum of gage is 402.87 ft above NGVD of 1929. Oct. 1964 to April 1975 at site 0.4 mi downstream at datum 1.23 ft lower, August 1993 to Sept. 1995 at datum 3.85 ft higher.

REMARKS.--No estimated daily discharges. Records good. Peak discharge of 12,200 ft³/s, Feb. 23, 1975, gage height 17.06 ft, occurred at Tucker Road near Bordeaux site. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1145	6,920	15.44	Mar 20	0745	4,980	13.33
Nov 29	2200	4,220	12.41	Apr 17	2014	4,490	12.74
Dec 13	0300	4,480	12.73	Apr 24	1415	6,190	14.67
Jan 24	0630	8,660	17.15	May 1	0215	5,350	13.75
Mar 17	0545	3,670	11.71	Jul 12	1715	4,160	12.34
Mar 17	2100	*11,000	*19.18				

Minimum discharge, 0.51 ft³/s, Oct. 3, 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	6.6	284	27	281	21	442	1140	5.3	2.7	13	2.1
2	0.63	6.0	174	23	176	21	240	327	4.6	2.4	9.2	2.0
3	0.62	5.7	124	20	144	22	152	215	4.0	102	7.4	1.8
4	0.60	6.2	94	19	118	18	105	212	3.6	17	5.9	1.9
5	26	5.1	75	17	91	15	74	156	3.5	6.9	6.0	2.0
6	15	4.9	68	19	81	14	55	115	304	4.6	4.4	2.3
7	3.5	4.7	73	17	106	13	41	88	48	3.6	3.7	2.8
8	2.3	4.6	129	15	119	12	34	66	20	3.0	3.3	2.2
9	2.2	4.6	133	14	108	45	33	58	12	54	3.0	2.1
10	1.7	5.0	109	16	95	48	25	47	8.1	111	2.8	2.1
11	1.9	4.7	88	35	77	36	23	36	6.5	37	2.7	2.1
12	34	4.6	97	25	66	55	87	27	5.6	480	2.5	2.1
13	47	4.3	1290	22	56	68	199	498	8.1	151	2.3	1.9
14	424	4.3	513	19	48	58	284	175	5.6	57	2.5	1.9
15	78	4.3	262	17	41	57	131	95	4.7	27	10	7.6
16	39	4.2	180	15	38	109	80	61	4.1	16	86	9.4
17	22	4.4	212	15	33	3180	673	61	3.9	21	16	4.5
18	15	4.5	218	27	28	1430	516	57	3.5	20	7.9	3.9
19	12	5.0	164	163	26	694	218	36	3.5	14	6.5	3.7
20	11	6.2	123	134	43	1710	131	27	3.3	11	5.1	50
21	9.0	6.4	96	103	33	566	85	22	3.0	8.6	5.0	27
22	7.4	6.0	77	88	29	292	59	18	2.8	111	3.6	9.6
23	6.6	5.7	130	448	26	186	41	15	2.6	29	3.4	6.2
24	12	22	111	2700	24	127	1290	12	2.7	21	3.1	4.8
25	35	23	93	592	21	92	584	9.5	5.9	13	2.9	4.3
26	15	11	79	304	38	401	267	13	3.6	9.9	2.9	761
27	12	539	66	192	28	225	167	9.3	11	8.2	2.8	952
28	9.6	158	56	137	24	152	218	9.2	9.6	13	3.0	165
29	8.7	2780	46	106	---	112	133	8.0	3.8	12	2.4	75
30	8.1	869	34	125	---	96	103	8.5	3.1	42	2.2	43
31	7.4	---	29	115	---	905	---	6.3	---	24	2.2	---
TOTAL	867.91	4520.0	5227	5569	1998	10780	6490	3627.8	510.0	1432.9	233.7	2156.3
MEAN	28.00	150.7	168.6	179.6	71.36	347.7	216.3	117.0	17.00	46.22	7.539	71.88
MAX	424	2780	1290	2700	281	3180	1290	1140	304	480	86	952
MIN	0.60	4.2	29	14	21	12	23	6.3	2.6	2.4	2.2	1.8
CFSM	0.55	2.94	3.29	3.50	1.39	6.78	4.22	2.28	0.33	0.90	0.15	1.40
IN.	0.63	3.28	3.79	4.04	1.45	7.82	4.71	2.63	0.37	1.04	0.17	1.56

03431599 WHITES CREEK NEAR BORDEAUX, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2002, BY WATER YEAR (WY)

MEAN	14.98	57.84	106.8	133.7	148.1	190.5	129.8	87.49	49.11	16.71	15.54	19.57
MAX	67.1	151	286	288	369	530	286	277	264	48.3	87.2	122
(WY)	1996	2002	1973	1999	1975	1975	1994	1995	1998	1967	1972	1974
MIN	2.05	6.30	8.18	25.2	36.3	46.0	18.8	20.1	4.70	1.11	1.79	0.98
(WY)	1970	1999	1966	1966	1968	1966	1967	2001	1966	1966	1999	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

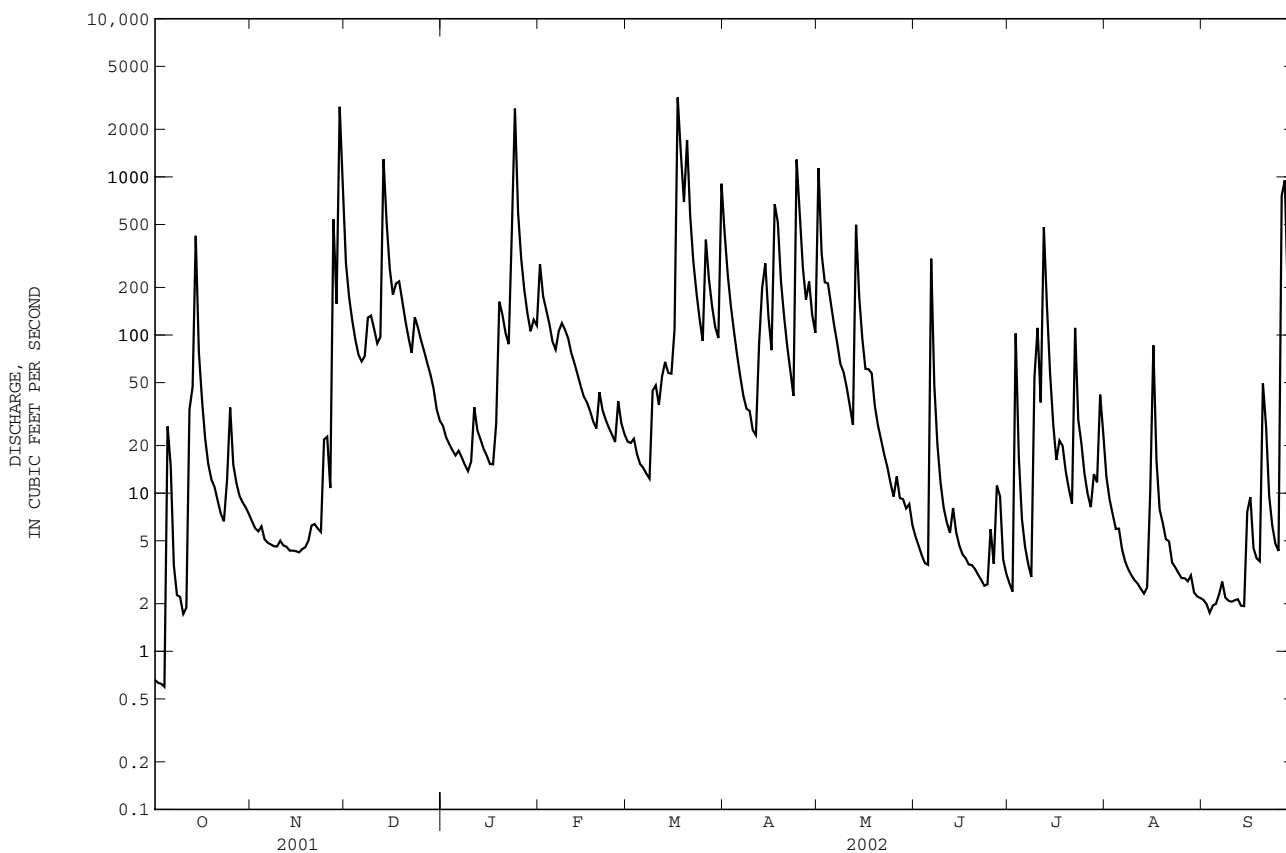
WATER YEARS 1965 - 2002

ANNUAL TOTAL	24415.57	43412.61	
ANNUAL MEAN	66.89	118.9	77.80
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			35.2
HIGHEST DAILY MEAN	2780	Nov 29	3180
LOWEST DAILY MEAN	0.60	Oct 4	0.60
ANNUAL SEVEN-DAY MINIMUM	0.68	Sep 28	2.0
MAXIMUM PEAK FLOW			11000
MAXIMUM PEAK STAGE			19.18
INSTANTANEOUS LOW FLOW			0.51
ANNUAL RUNOFF (CFSM)	1.30	2.32	1.52
ANNUAL RUNOFF (INCHES)	17.70	31.48	20.61
10 PERCENT EXCEEDS	128	231	169
50 PERCENT EXCEEDS	14	23	20
90 PERCENT EXCEEDS	1.4	2.9	2.5

a From rating curve extended above 6,900 ft³/s on basis of contracted-opening measurement of peak flow, see REMARKS.

b Current site and datum.

c Also occurred Oct. 4, 5.



CUMBERLAND RIVER BASIN

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN

LOCATION.--Lat 36°09'04", long 86°51'16", Davidson County, Hydrologic Unit 05130202, near right bank on downstream end of pier of Charlotte Avenue bridge on U.S. Highway 70, 4.0 mi southwest of the State Capitol in Nashville, and at mile 3.7.

DRAINAGE AREA.--24.3 mi².

PERIOD OF RECORD.--July 1964 to September 1990, August 1993 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 409.56 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good, except below 5 ft³/s which are fair. Diversions above station used for irrigation of golf courses. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1100	2,110	7.28	Mar 17	2100	*5,100	*11.45
Jan 24	0530	1,750	6.61	Sep 27	0200	1,570	6.25

Minimum discharge, 0.98 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	11	78	8.5	93	17	144	126	7.3	16	4.8	3.4
2	1.7	11	47	8.1	61	17	97	49	6.8	12	4.4	3.1
3	1.6	11	31	7.7	56	16	73	40	6.3	79	4.0	3.2
4	1.4	11	22	7.2	48	15	58	63	6.3	51	3.8	4.6
5	32	11	17	7.4	41	15	48	44	6.1	22	3.8	3.1
6	18	10	16	7.4	40	14	41	36	103	16	3.5	10
7	5.3	9.9	15	6.8	48	13	36	34	21	13	3.4	4.6
8	3.8	9.2	102	6.5	47	13	33	26	15	11	3.4	3.3
9	2.7	9.8	57	6.1	42	30	30	24	12	20	3.1	3.3
10	2.4	9.5	38	7.8	40	20	25	24	10	28	3.2	2.9
11	4.1	9.5	28	12	35	18	38	21	9.1	15	3.2	3.0
12	35	9.3	32	8.3	32	29	42	17	8.1	87	3.2	2.6
13	45	9.7	199	7.6	28	26	31	212	7.7	68	2.7	5.8
14	121	9.5	121	7.2	25	23	26	74	6.9	32	28	5.8
15	38	9.3	70	6.9	24	21	23	49	6.4	20	26	24
16	28	9.2	49	6.5	22	43	21	37	6.2	15	60	11
17	21	8.8	59	7.2	20	930	21	42	5.8	12	13	7.0
18	18	9.6	44	12	19	463	18	34	5.1	15	7.8	6.2
19	15	11	34	92	18	231	17	24	4.4	12	6.7	5.1
20	13	10	26	46	35	417	15	20	4.3	9.3	6.0	32
21	13	11	20	32	22	186	14	18	3.9	8.1	5.1	18
22	12	11	17	29	20	129	25	15	3.7	39	10	8.7
23	11	10	32	172	18	97	14	13	3.5	17	7.9	6.7
24	30	20	21	511	17	75	112	12	10	12	5.6	6.0
25	33	14	17	167	17	59	45	11	160	9.5	5.2	6.7
26	20	12	15	103	30	102	32	14	23	7.8	4.9	317
27	16	48	13	76	19	63	26	11	20	6.8	4.5	428
28	15	31	12	59	18	52	42	12	15	8.1	5.9	84
29	13	633	11	48	---	47	27	9.6	12	6.4	4.3	48
30	13	187	9.7	75	---	51	24	9.0	9.4	6.1	4.0	33
31	12	---	9.0	63	---	328	---	8.2	---	5.7	3.7	---
TOTAL	596.9	1176.3	1261.7	1614.2	935	3560	1198	1128.8	518.3	679.8	255.1	1100.1
MEAN	19.25	39.21	40.70	52.07	33.39	114.8	39.93	36.41	17.28	21.93	8.229	36.67
MAX	121	633	199	511	93	930	144	212	160	87	60	428
MIN	1.4	8.8	9.0	6.1	17	13	14	8.2	3.5	5.7	2.7	2.6
CFSM	0.79	1.61	1.67	2.14	1.37	4.73	1.64	1.50	0.71	0.90	0.34	1.51
IN.	0.91	1.80	1.93	2.47	1.43	5.45	1.83	1.73	0.79	1.04	0.39	1.68

03431700 RICHLAND CREEK AT CHARLOTTE AVENUE, AT NASHVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	11.24	31.90	53.82	51.74	55.71	64.32	43.63	37.18	21.83	11.33	7.943	12.73
MAX	53.0	89.8	247	151	205	208	146	131	107	42.0	24.6	127
(WY)	1976	1987	1965	1974	1989	1975	1979	1984	1998	1979	1994	1979
MIN	0.41	1.79	2.57	3.96	10.3	18.2	5.76	5.06	1.33	1.34	1.18	0.92
(WY)	1966	1972	1966	1986	1968	1966	1986	1977	1988	1966	1980	1980

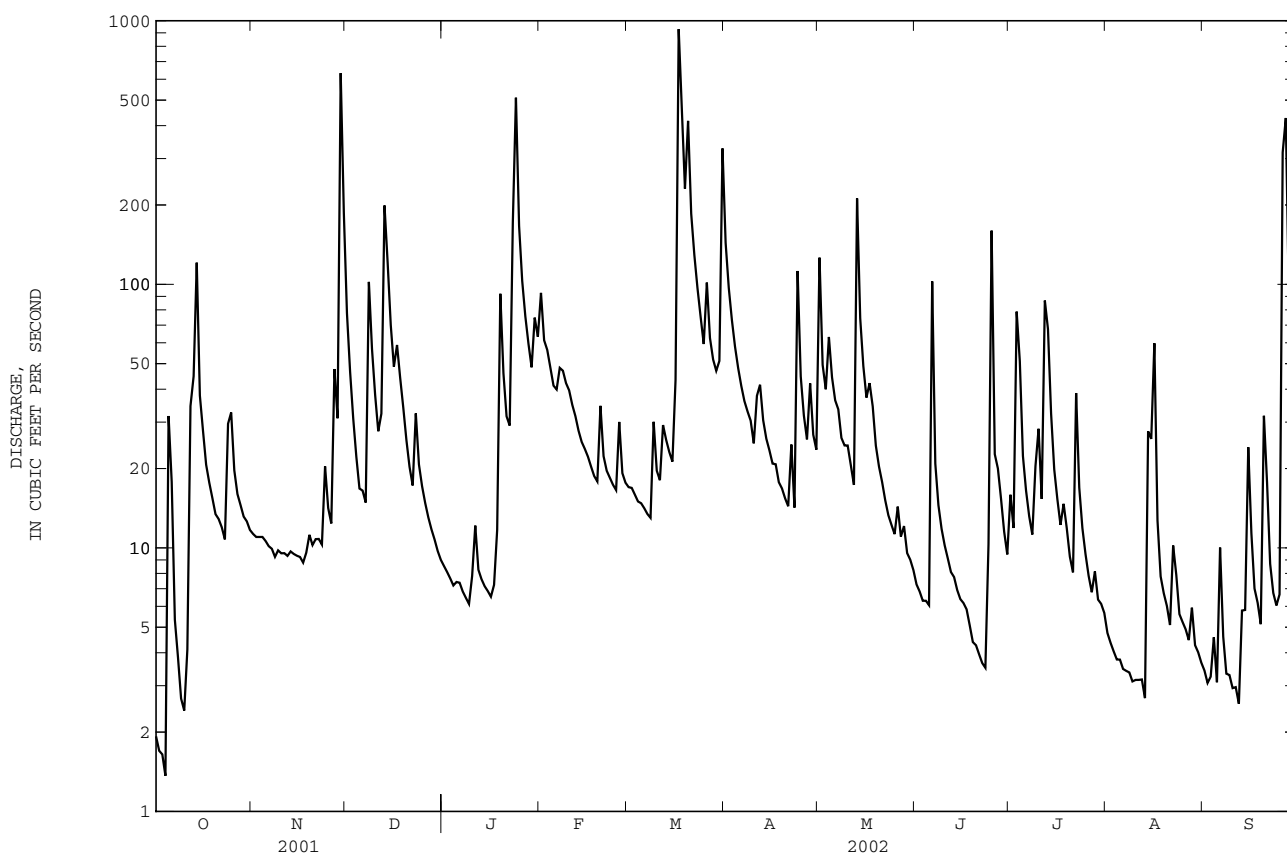
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	9671.2	14024.2	
ANNUAL MEAN	26.50	38.42	33.56
HIGHEST ANNUAL MEAN			71.3 1979
LOWEST ANNUAL MEAN			13.6 1966
HIGHEST DAILY MEAN	678 Feb 16	930 Mar 17	7020 Nov 2 1990
LOWEST DAILY MEAN	1.4 Jul 23	1.4 Oct 4	0.05 Oct 8 1980
ANNUAL SEVEN-DAY MINIMUM	1.6 Jul 17	3.2 Aug 7	0.23 Oct 8 1965
MAXIMUM PEAK FLOW		5100 Mar 17	9470 Sep 13 1979
MAXIMUM PEAK STAGE		11.45 Mar 17	15.13 Sep 13 1979
INSTANTANEOUS LOW FLOW		0.98 Oct 4	0.05 Oct 7 1980
ANNUAL RUNOFF (CFSM)	1.09	1.58	1.38
ANNUAL RUNOFF (INCHES)	14.81	21.47	18.77
10 PERCENT EXCEEDS	49	75	73
50 PERCENT EXCEEDS	11	16	11
90 PERCENT EXCEEDS	2.4	4.4	1.6



CUMBERLAND RIVER BASIN

03432350 HARPEETH RIVER AT FRANKLIN, TN

LOCATION.--Lat 35°55'14", long 86°51'56", Williamson County, Hydrologic Unit 05130204, on left bank 15 ft downstream from State Highway 96 bridge, 0.4 mi southeast of the courthouse in Franklin, and at mile 88.1.

DRAINAGE AREA.--191 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 604.42 ft above NGVD of 1929.

REMARKS.--No estimated daily discharge. Records good except those below 5.0 ft³/s, which are poor. The Franklin Utility District diverts part of its municipal water supply from the river above the gage. This water along with other water is returned to the river through the sewage treatment plant 2.7 mi below gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	0530	5,120	19.38	Mar 31	1930	4,710	18.34
Jan 24	2230	*9,010	*25.80	May 13	1630	3,880	16.07
Mar 18	0700	7,110	23.34				

Minimum daily discharge, 2.6 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	28	1060	110	516	111	2470	367	33	3.9	3.5	3.5
2	3.4	27	627	99	456	115	1120	266	29	6.5	3.3	3.6
3	3.4	29	459	96	406	116	747	554	25	8.4	4.2	3.7
4	3.6	32	354	94	382	100	566	819	28	12	4.5	3.6
5	4.5	27	267	89	345	86	469	535	59	7.9	3.1	3.4
6	125	19	216	89	328	82	405	366	37	3.3	3.0	3.4
7	95	18	235	86	388	82	359	273	29	3.0	3.0	3.7
8	39	16	1580	77	419	86	326	207	21	3.6	3.1	3.6
9	24	13	1210	73	383	98	308	168	17	4.2	3.1	3.5
10	16	12	706	74	366	99	266	152	14	6.3	3.4	3.0
11	11	12	573	87	359	87	240	157	12	65	3.7	3.0
12	72	11	462	84	322	144	232	135	15	34	3.5	2.8
13	113	13	1030	76	294	450	214	2210	21	15	3.6	2.6
14	1130	11	1460	66	263	321	199	1280	15	11	3.6	3.1
15	587	12	911	61	237	253	171	575	9.8	13	5.9	4.4
16	289	18	611	58	223	250	143	377	8.5	5.7	6.1	127
17	176	18	522	64	200	4200	124	303	11	4.1	4.3	7.0
18	120	14	480	78	170	6450	116	327	9.7	8.7	3.9	17
19	92	9.7	394	777	151	2250	94	235	4.9	6.3	3.8	43
20	74	12	329	835	222	1910	86	181	5.1	3.3	3.9	71
21	61	12	271	517	227	1340	85	147	10	4.1	3.8	55
22	50	10	230	387	175	870	74	122	6.8	4.8	3.7	8.8
23	47	9.6	364	3070	149	661	62	105	2.9	20	4.2	5.8
24	63	30	425	7500	139	540	64	93	5.8	11	6.0	6.0
25	118	30	328	6290	134	455	75	87	7.3	3.7	3.7	5.5
26	87	37	269	1610	145	703	68	72	2.7	3.8	20	190
27	61	67	222	1000	133	578	63	61	4.0	6.3	4.8	793
28	43	302	193	734	116	461	165	56	4.5	6.3	3.8	281
29	37	2360	172	590	---	422	108	58	10	5.5	6.1	104
30	33	3710	152	512	---	936	70	53	7.1	3.9	3.7	56
31	30	---	130	444	---	3260	---	42	---	3.7	3.5	---
TOTAL	3611.3	6919.3	16242	25727	7648	27516	9489	10383	465.1	298.3	139.8	1821.0
MEAN	116.5	230.6	523.9	829.9	273.1	887.6	316.3	334.9	15.50	9.623	4.510	60.70
MAX	1130	3710	1580	7500	516	6450	2470	2210	59	65	20	793
MIN	3.4	9.6	130	58	116	82	62	42	2.7	3.0	3.0	2.6
CFSM	0.61	1.21	2.74	4.35	1.43	4.65	1.66	1.75	0.08	0.05	0.02	0.32
IN.	0.70	1.35	3.16	5.01	1.49	5.36	1.85	2.02	0.09	0.06	0.03	0.35

03432350 HARPETH RIVER AT FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

MEAN	90.61	254.8	463.9	537.0	540.0	662.6	359.2	302.2	119.9	61.33	39.32	66.65
MAX	610	778	1172	1472	1358	1945	1066	1489	574	431	208	971
(WY)	1976	1980	1991	1979	1990	1975	1979	1984	1997	1989	1998	1979
MIN	0.52	4.08	16.2	14.4	139	159	62.2	21.8	1.25	1.44	1.58	1.17
(WY)	1981	1981	1981	1986	1978	1985	1986	1988	1988	1988	1988	1980

SUMMARY STATISTICS

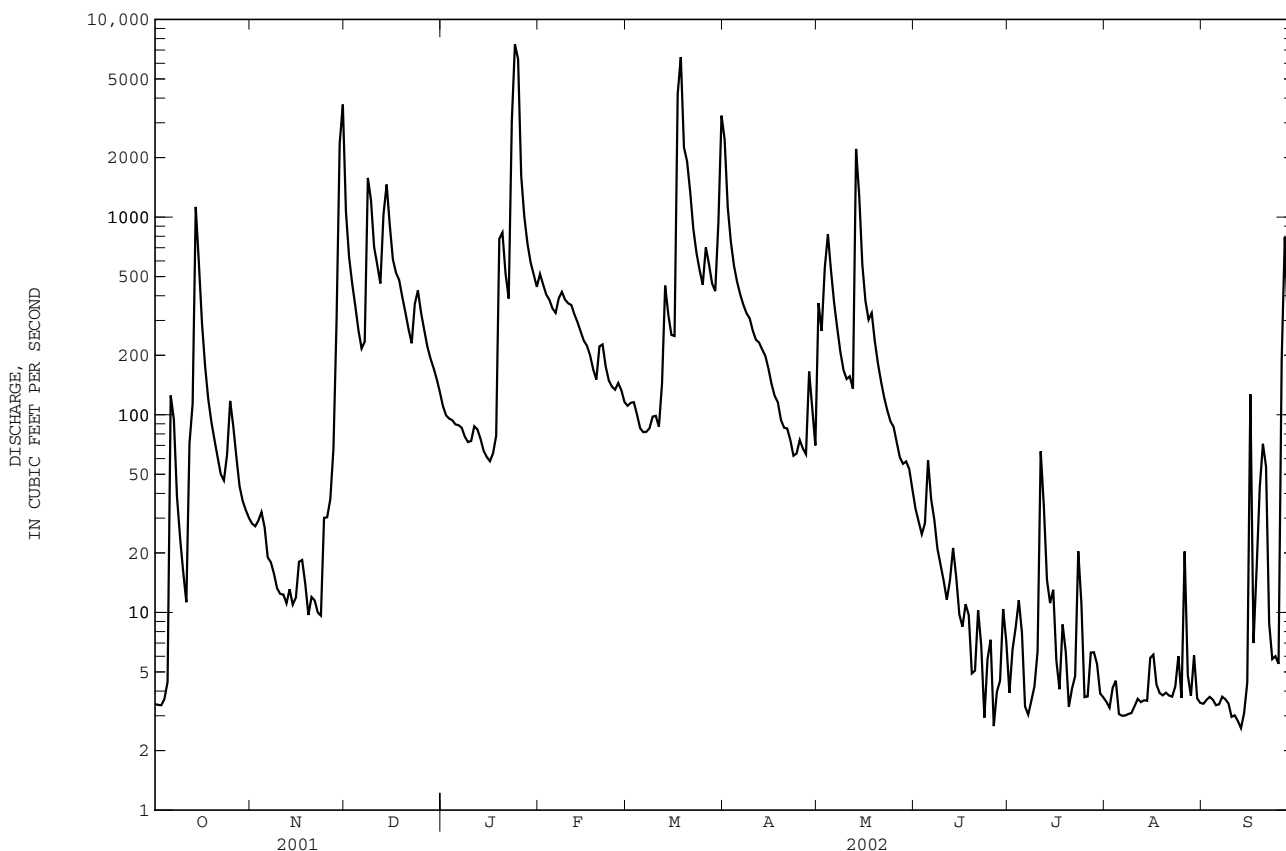
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1975 - 2002

ANNUAL TOTAL	91234.1	110259.8	
ANNUAL MEAN	250.0	302.1	290.6
HIGHEST ANNUAL MEAN			522
LOWEST ANNUAL MEAN			68.7
HIGHEST DAILY MEAN	7920	Feb 17	7500
LOWEST DAILY MEAN	1.7	Sep 18	2.6
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 12	3.1
MAXIMUM PEAK FLOW			9010
MAXIMUM PEAK STAGE			25.80
INSTANTANEOUS LOW FLOW			2.3
ANNUAL RUNOFF (CFSM)	1.31	1.58	1.52
ANNUAL RUNOFF (INCHES)	17.77	21.47	20.67
10 PERCENT EXCEEDS	581	617	642
50 PERCENT EXCEEDS	63	75	89
90 PERCENT EXCEEDS	9.3	3.7	2.9

a Also occurred Sept. 13.



034323531 HARPETH RIVER TRIBUTARY AT MACK HATCHER PARKWAY NEAR FRANKLIN, TN

LOCATION.--Lat 35°55'20", long 86°51'18", Williamson County, Hydrologic Unit 05130204, on downstream left abutment on highway bridge on Mack Hatcher Parkway 0.5 north of Hwy 96 and Mack Hatcher intersection.

DRAINAGE AREA.--0.91 mi².

PERIOD OF RECORD.--October 1999 to current year.

GAGE.--Data logger.

REMARKS.--Records poor. Periodic observations of water temperature and specific conductance are published in the report as miscellaneous water-quality data.

EXTREMES FOR WATER YEARS 2000-2002.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2000	Jan 3	2235	171	4.63	May 25	0225	*454	*6.47
	Feb 17	2115	149	4.47	Sep 24	1510	205	4.86
	May 3	1650	142	4.42				

Minimum discharge, 0.00 ft³/s, on many days.

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2001	Nov 9	0005	*130	*5.54	Feb 25	0155	126	5.49

Minimum discharge, 0.00 ft³/s, on many days.

Water year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2002	Nov 29	1040	108	5.19	May 13	0735	*221	*5.03

Minimum discharge, 0.00 ft³/s, on many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.15	0.0	0.02	0.24	0.62	0.25	1.9	1.2	0.08	0.00	0.01
2	0.00	6.6	0.00	0.02	0.17	0.49	0.71	1.6	0.87	0.06	0.00	0.01
3	0.00	0.09	0.00	14	0.14	0.58	17	13	0.66	0.05	0.0	0.01
4	0.00	0.04	0.00	4.3	0.09	0.40	7.7	2.2	0.53	0.04	3.8	0.01
5	0.00	0.02	0.39	1.9	0.06	0.24	3.6	1.7	0.46	0.03	0.03	0.01
6	0.00	0.01	0.17	1.4	0.05	0.20	2.5	1.3	0.39	0.03	0.0	0.01
7	0.00	0.00	0.03	1.2	0.04	0.16	2.0	0.73	0.33	0.03	0.00	0.01
8	0.00	0.00	0.01	0.77	0.03	0.11	4.3	0.35	0.26	0.03	0.02	0.01
9	3.9	0.00	0.01	1.9	0.03	0.07	1.7	0.19	0.20	0.01	0.07	0.01
10	0.71	0.00	2.8	0.68	0.03	0.21	1.4	1.1	0.16	0.00	0.12	0.01
11	0.07	0.00	0.26	0.38	0.09	1.6	4.9	0.16	0.13	0.00	0.08	0.01
12	0.0	0.00	7.4	0.29	0.22	0.28	e8.1	0.11	0.09	1.2	0.03	0.01
13	0.00	0.00	6.4	1.2	9.1	0.16	e5.8	0.09	0.08	0.08	0.02	0.04
14	0.00	0.00	2.9	0.36	4.1	0.11	e5.1	0.05	0.07	0.03	0.02	0.01
15	0.00	0.00	2.0	0.25	2.5	0.09	e4.6	0.03	0.06	0.00	0.02	0.01
16	0.00	0.00	1.4	0.26	2.0	0.50	e3.8	0.03	0.05	0.00	0.02	0.01
17	0.00	0.00	1.0	0.23	13	0.18	e5.4	0.03	0.63	0.00	0.01	0.01
18	0.00	0.00	0.72	0.23	4.3	0.09	e4.2	0.02	0.21	0.00	0.01	0.01
19	0.00	0.00	0.45	0.24	3.7	14	e3.6	0.01	0.11	0.00	0.01	0.01
20	0.00	0.00	0.31	0.31	3.0	5.8	e3.2	0.02	0.08	0.0	0.01	0.01
21	0.00	0.00	0.22	0.22	2.3	2.9	e2.9	0.03	0.06	0.02	0.01	0.01
22	0.00	0.00	0.15	0.18	1.8	2.0	e2.6	0.02	0.05	0.00	0.01	0.01
23	0.00	0.00	0.12	0.27	1.4	1.5	e2.4	6.0	0.04	0.00	0.01	0.01
24	0.00	0.0	0.11	0.27	1.2	1.2	e33	0.06	0.03	0.00	0.01	13
25	0.00	2.9	0.10	0.21	0.85	1.7	e20	54	0.02	0.00	0.01	0.52
26	0.00	1.4	0.09	0.40	0.70	0.95	e7.2	11	0.03	0.00	0.01	0.28
27	0.00	0.20	0.08	0.16	3.6	1.2	e8.4	9.7	2.7	0.00	0.72	0.24
28	0.00	0.06	0.06	0.10	1.2	0.47	e7.0	7.1	0.26	0.00	0.05	0.23
29	0.00	0.01	0.05	0.58	0.88	0.36	e3.8	5.5	0.13	0.00	0.02	0.21
30	0.00	0.01	0.04	0.46	---	0.86	2.7	3.4	0.10	0.03	0.02	0.18
31	0.00	---	0.03	0.30	---	0.33	---	1.9	---	0.0	0.01	---
TOTAL	4.68	11.49	27.30	33.09	56.82	39.36	179.86	123.33	9.99	1.72	5.15	14.92
MEAN	0.151	0.383	0.881	1.067	1.959	1.270	5.995	3.978	0.333	0.055	0.166	0.497
MAX	3.9	6.6	7.4	14	13	14	33	54	2.7	1.2	3.8	13
MIN	0.00	0.00	0.00	0.02	0.03	0.07	0.25	0.01	0.02	0.00	0.00	0.01
CFSM	0.17	0.42	0.97	1.17	2.15	1.40	6.59	4.37	0.37	0.06	0.18	0.55
IN.	0.19	0.47	1.12	1.35	2.32	1.61	7.35	5.04	0.41	0.07	0.21	0.61

e Estimated

034323531 HARPETH RIVER TRIBUTARY AT MACK HATCHER PARKWAY NEAR FRANKLIN, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.00	0.39	0.36	1.1	1.5	0.53	0.11	2.5	0.50	0.07	0.51
2	0.0	0.00	0.34	0.33	0.94	1.2	0.47	0.11	1.2	0.42	0.06	0.24
3	0.00	0.00	0.31	0.30	0.82	0.93	0.51	0.08	0.89	0.38	0.43	0.24
4	0.00	0.00	0.26	0.27	0.72	2.0	0.44	0.06	0.65	0.49	0.15	0.21
5	0.00	0.00	0.22	0.26	0.64	1.2	0.40	0.06	0.44	0.43	0.08	0.17
6	0.55	0.49	0.19	0.23	0.56	e1.1	0.34	0.08	0.33	0.34	0.06	0.13
7	0.07	0.63	0.16	0.21	0.47	e0.77	0.30	e0.07	0.53	0.32	0.06	0.11
8	0.00	12	0.14	0.20	0.39	e0.52	0.28	e0.07	0.36	0.30	0.06	0.10
9	0.00	22	0.11	0.17	3.5	e0.30	0.26	e0.07	0.25	0.29	0.06	0.16
10	0.00	2.6	0.09	0.15	1.6	e0.20	0.24	e0.07	0.19	0.30	0.70	0.17
11	0.00	1.4	0.09	0.28	1.1	e0.11	0.19	0.12	0.16	0.29	0.17	0.10
12	0.00	0.77	0.24	0.43	0.96	e0.45	0.25	0.07	0.12	0.29	0.09	0.08
13	0.00	0.61	8.1	0.25	1.2	e0.21	3.7	0.02	0.10	0.29	0.07	0.07
14	0.00	0.45	3.0	0.21	3.8	e0.02	0.63	0.02	2.4	0.28	0.06	0.07
15	0.00	0.31	3.5	0.18	19	e1.3	2.5	0.01	5.0	0.28	0.05	0.07
16	0.00	0.38	18	0.16	38	0.75	0.71	0.0	13	0.27	0.05	0.07
17	0.00	0.33	6.6	0.14	19	0.55	0.57	0.00	5.7	0.26	0.05	0.06
18	0.00	0.22	3.4	2.8	11	0.48	0.61	0.00	2.6	0.26	0.05	0.06
19	0.00	0.17	2.4	14	5.1	0.46	0.54	0.01	1.5	0.26	0.05	5.4
20	0.00	0.16	1.7	5.7	3.0	6.7	0.46	0.02	1.2	0.26	0.05	0.69
21	0.00	0.17	1.4	3.4	2.1	3.7	0.41	0.82	2.5	0.26	0.04	0.26
22	0.00	0.17	1.1	2.3	2.9	2.5	0.32	6.8	3.9	0.25	0.04	0.22
23	0.00	0.14	0.99	1.5	1.5	1.9	0.33	1.1	1.0	0.24	4.6	0.21
24	0.00	1.0	0.86	1.3	1.2	1.5	1.0	0.60	0.82	0.46	1.6	1.2
25	0.00	1.7	0.75	1.1	18	1.2	0.32	0.37	0.72	2.7	0.21	0.30
26	0.00	0.70	0.66	0.90	4.4	1.1	0.25	0.24	0.66	0.15	0.20	0.24
27	0.00	0.55	0.60	0.76	3.0	0.90	0.21	0.19	0.60	0.09	7.6	0.23
28	0.00	0.47	0.51	0.65	2.1	0.76	0.18	0.29	0.54	0.09	0.48	0.22
29	0.00	0.48	0.48	3.4	---	0.68	0.15	0.23	0.53	0.09	0.26	0.21
30	0.00	0.41	0.40	1.8	---	0.64	0.12	0.14	0.90	0.14	0.23	0.21
31	0.00	---	0.36	1.4	---	0.59	---	3.7	---	0.08	0.35	---
TOTAL	0.87	48.31	57.35	45.14	148.10	36.22	17.22	15.53	51.29	11.06	18.03	12.01
MEAN	0.028	1.610	1.850	1.456	5.289	1.168	0.574	0.501	1.710	0.357	0.582	0.400
MAX	0.55	22	18	14	38	6.7	3.7	6.8	13	2.7	7.6	5.4
MIN	0.00	0.00	0.09	0.14	0.39	0.02	0.12	0.00	0.10	0.08	0.04	0.06
CFSM	0.03	1.77	2.03	1.60	5.81	1.28	0.63	0.55	1.88	0.39	0.64	0.44
IN.	0.04	1.97	2.34	1.85	6.05	1.48	0.70	0.63	2.10	0.45	0.74	0.49

e Estimated

CUMBERLAND RIVER BASIN

034323531 HARPETH RIVER TRIBUTARY AT MACK HATCHER PARKWAY NEAR FRANKLIN, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.09	0.19	26	0.64	7.1	0.58	24	16	0.15	0.08	0.04	0.00
2	0.08	0.17	22	0.59	3.1	0.53	19	7.8	0.14	0.08	0.00	0.00
3	0.06	0.17	19	0.54	3.2	0.50	14	5.4	0.13	0.48	0.00	0.00
4	0.05	0.14	13	0.50	2.6	0.46	9.5	8.7	1.3	0.13	0.00	0.00
5	2.4	0.12	7.5	0.47	2.1	0.42	6.2	5.3	0.98	0.10	0.00	0.00
6	1.5	0.11	5.4	0.54	2.2	0.40	4.5	4.4	0.18	0.10	0.00	0.00
7	0.14	0.10	7.9	0.46	2.8	0.39	4.2	4.0	0.19	0.10	0.00	0.00
8	0.06	0.09	30	0.41	2.3	0.34	4.3	3.5	0.17	0.10	0.00	0.00
9	0.02	0.09	16	0.38	1.9	1.3	3.5	3.4	0.16	0.13	0.00	0.00
10	0.00	0.09	9.7	0.38	2.3	0.54	2.7	4.1	0.15	0.85	0.00	0.00
11	e0.39	0.08	4.4	0.84	1.8	0.38	2.4	3.3	0.15	0.11	0.00	0.00
12	e5.6	0.07	3.9	0.49	1.6	0.98	2.9	2.8	0.15	0.66	0.00	0.00
13	e0.45	0.06	10	0.41	1.4	e0.72	2.4	e26	0.27	0.14	0.00	0.00
14	e16	0.06	8.3	0.37	1.3	e0.64	2.0	e11	0.17	0.07	0.00	0.00
15	e5.0	0.05	5.3	0.33	1.1	e0.58	1.8	e5.4	0.17	0.08	0.86	0.00
16	e1.7	0.05	4.0	0.32	1.1	e4.9	1.7	e3.2	0.17	0.09	0.36	0.00
17	0.20	0.04	4.5	e0.33	0.99	e40	1.5	e3.7	0.17	0.05	0.09	0.00
18	0.00	0.04	2.9	e0.97	0.88	e25	1.4	e2.3	0.15	0.13	0.00	0.17
19	0.00	0.05	2.3	e3.0	0.82	e16	1.3	e1.4	0.14	0.18	0.00	0.00
20	0.00	0.20	1.9	1.9	4.0	e36	1.2	e0.96	0.13	0.01	0.00	2.4
21	0.00	0.05	1.6	1.4	1.2	e27	1.2	e0.63	0.11	0.04	0.00	0.02
22	0.00	0.04	1.4	1.7	0.94	21	1.1	e0.42	0.11	0.04	2.0	0.00
23	0.00	0.03	2.1	e16	0.84	17	1.2	e0.28	0.10	2.5	3.6	0.00
24	4.3	6.1	1.5	e120	0.75	14	3.9	0.19	0.12	0.41	0.90	0.00
25	5.6	0.56	1.3	e34	0.69	11	2.8	0.15	0.11	0.17	0.55	0.00
26	0.55	0.21	1.1	e14	1.4	17	1.9	0.16	0.10	0.13	0.28	9.7
27	0.43	7.6	1.0	9.9	0.76	13	1.7	0.15	0.10	0.09	0.16	7.8
28	0.40	0.99	0.92	6.1	0.67	11	11	0.13	0.11	0.16	0.11	3.6
29	0.36	47	0.82	4.4	---	12	3.5	0.13	0.09	0.09	0.04	3.9
30	0.32	33	0.75	3.5	---	15	3.1	0.52	0.09	0.64	0.0	1.8
31	0.25	---	0.69	2.7	---	27	---	0.19	---	0.19	0.00	---
TOTAL	45.95	97.55	217.18	227.57	51.84	315.66	141.9	125.61	6.26	8.13	8.99	29.39
MEAN	1.482	3.252	7.006	7.341	1.851	10.18	4.730	4.052	0.209	0.262	0.290	0.980
MAX	16	47	30	120	7.1	40	24	26	1.3	2.5	3.6	9.7
MIN	0.00	0.03	0.69	0.32	0.67	0.34	1.1	0.13	0.09	0.01	0.00	0.00
CFSM	1.63	3.57	7.70	8.07	2.03	11.2	5.20	4.45	0.23	0.29	0.32	1.08
IN.	1.88	3.99	8.88	9.30	2.12	12.90	5.80	5.13	0.26	0.33	0.37	1.20

e Estimated

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CUMBERLAND RIVER BASIN

03432387 SOUTH PRONG SPENCER CREEK NEAR FRANKLIN, TN

LOCATION.--Lat 35°56'39", long 86°49'35", Williamson County, Hydrologic Unit 05130204, on left upstream side of the bridge on Cool Spring Blvd., 1.7 miles northeast of Franklin, Tennessee.

DRAINAGE AREA.--2.66 mi².

PERIOD OF RECORD.--June 2000 to current year.

GAGE.--Data logger.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 250 ft³/s, May 13, gage height, 8.55 ft; minimum daily discharge, 0.08 ft³/s, Aug. 12, 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	0.25	12	1.6	13	2.1	30	12	3.8	2.6	0.31	0.33
2	0.24	0.24	7.3	1.4	7.2	2.0	19	7.8	3.6	2.5	0.27	0.31
3	0.22	0.31	5.0	1.4	7.0	2.0	14	7.1	3.4	6.2	0.23	0.29
4	0.22	0.27	4.0	1.3	5.9	1.9	10	11	6.6	0.91	0.23	0.32
5	2.5	0.27	3.3	1.2	5.1	1.8	8.4	6.5	6.1	0.70	0.19	0.28
6	0.86	0.27	3.1	1.4	5.4	1.8	7.0	5.1	4.2	0.58	0.15	0.26
7	0.44	0.25	3.5	1.2	6.4	1.7	6.0	4.2	3.9	0.49	0.14	0.26
8	0.37	0.24	36	1.1	5.7	1.7	5.5	3.6	3.7	0.50	0.13	0.24
9	0.33	0.24	14	1.1	5.2	3.8	5.0	3.3	3.6	1.0	0.12	0.23
10	0.30	0.24	9.6	1.2	5.5	2.0	4.3	4.6	3.6	2.8	0.12	0.22
11	1.2	0.24	6.3	1.6	4.6	2.1	4.0	3.2	3.2	0.99	0.11	0.21
12	4.9	0.23	5.6	1.1	4.2	3.6	4.8	2.8	3.1	1.5	0.09	0.21
13	8.3	0.22	16	1.1	3.9	2.4	3.6	52	3.4	1.00	0.09	0.20
14	12	0.20	18	1.1	3.5	2.4	3.3	21	3.0	0.80	0.32	0.26
15	2.2	0.20	12	1.0	3.2	2.3	3.0	13	3.0	0.77	1.3	0.97
16	1.6	0.19	7.8	0.97	3.0	12	2.8	9.8	3.0	0.63	0.81	0.50
17	1.1	0.18	7.6	1.1	2.7	90	2.6	11	2.9	0.54	0.29	0.40
18	1.1	0.17	5.3	1.4	2.5	59	2.5	9.0	2.8	0.62	0.22	1.2
19	0.71	0.31	4.2	7.4	2.4	35	2.4	7.4	2.7	0.41	0.20	0.56
20	0.57	0.19	3.5	3.8	5.9	41	2.3	6.6	2.6	0.36	0.16	5.5
21	0.45	0.16	3.1	3.1	3.0	28	2.1	6.0	2.5	0.42	0.15	1.4
22	0.49	0.15	2.7	4.0	2.7	19	2.3	5.7	2.5	0.38	2.3	0.91
23	0.41	0.14	3.7	35	2.5	14	2.1	5.2	2.7	2.2	2.7	0.78
24	3.8	1.8	2.6	81	2.4	11	5.5	4.9	2.6	0.66	0.99	0.66
25	1.3	0.39	2.5	36	2.3	8.6	2.8	4.7	2.7	0.46	0.99	0.88
26	0.70	0.33	2.3	24	3.6	20	2.4	4.5	2.6	0.38	0.75	19
27	0.48	2.2	2.1	16	2.4	12	2.1	4.3	3.0	0.33	0.66	14
28	0.44	0.85	2.0	12	2.2	9.4	5.5	4.3	2.7	0.37	0.57	3.7
29	0.34	75	1.9	9.0	---	10	2.6	4.0	2.5	0.32	0.47	2.4
30	0.31	25	1.8	7.6	---	13	2.4	6.2	2.7	0.94	0.42	1.9
31	0.29	---	1.7	6.3	---	44	---	4.3	---	0.38	0.37	---
TOTAL	48.42	110.73	210.5	267.47	123.4	459.6	170.3	255.1	98.7	32.74	15.85	58.38
MEAN	1.562	3.691	6.790	8.628	4.407	14.83	5.677	8.229	3.290	1.056	0.511	1.946
MAX	12	75	36	81	13	90	30	52	6.6	6.2	2.7	19
MIN	0.22	0.14	1.7	0.97	2.2	1.7	2.1	2.8	2.5	0.32	0.09	0.20
CFSM	0.59	1.39	2.55	3.24	1.66	5.57	2.13	3.09	1.24	0.40	0.19	0.73
IN.	0.68	1.55	2.94	3.74	1.73	6.43	2.38	3.57	1.38	0.46	0.22	0.82

03432387 SOUTH PRONG SPENCER CREEK NEAR FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	0.812	3.668	5.466	6.222	9.698	9.563	3.595	5.206	2.319	0.607	0.617	1.060
MAX	1.56	3.69	6.79	8.63	15.0	14.8	5.68	8.23	3.29	1.06	1.07	1.95
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2002	2002	2001	2002
MIN	0.063	3.64	4.14	3.82	4.41	4.30	1.51	2.18	0.95	0.16	0.27	0.30
(WY)	2001	2001	2001	2001	2002	2001	2001	2001	2000	2000	2000	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

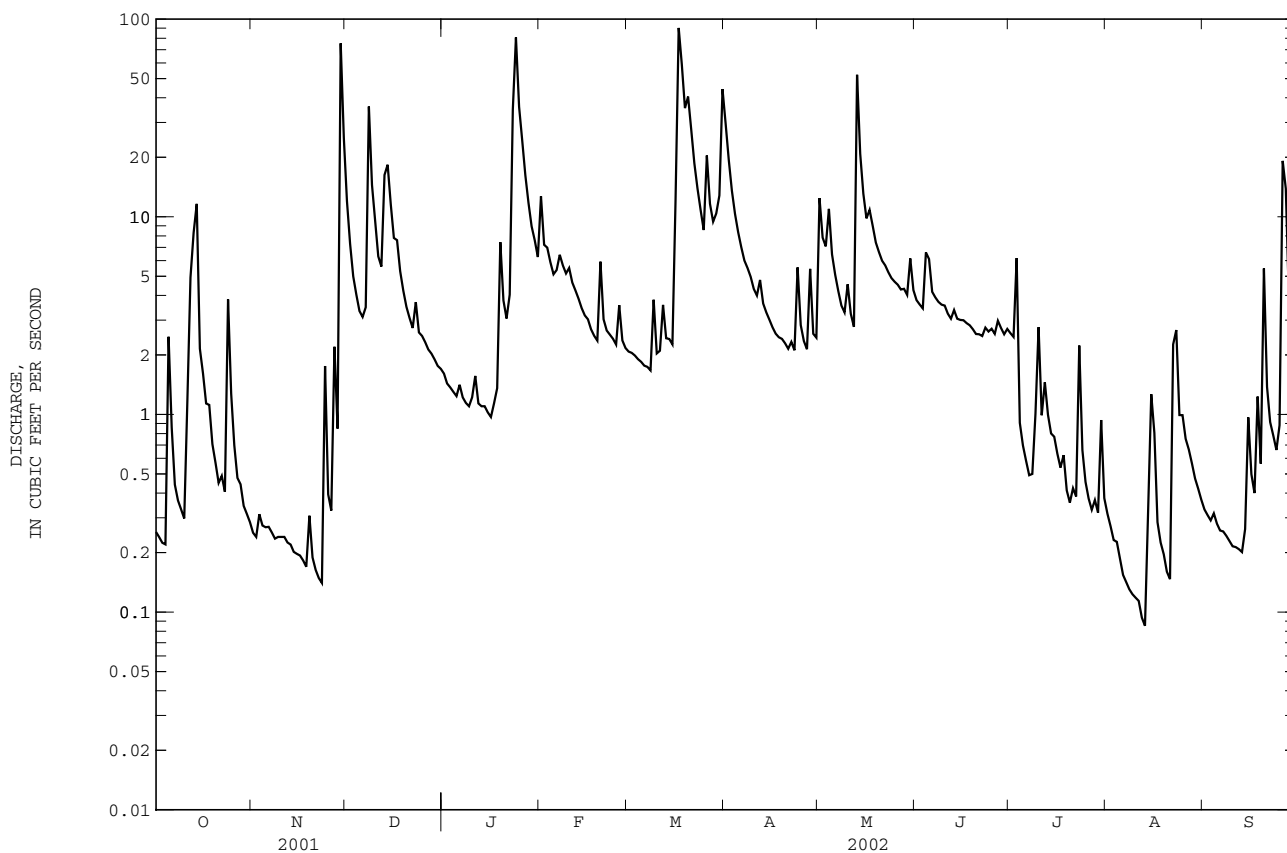
FOR 2002 WATER YEAR

WATER YEARS 2000 - 2002

ANNUAL TOTAL	1315.40	1851.19	
ANNUAL MEAN	3.604	5.072	4.160
HIGHEST ANNUAL MEAN			5.07 2002
LOWEST ANNUAL MEAN			3.25 2001
HIGHEST DAILY MEAN	113 Feb 16	90 Mar 17	113 Feb 16 2001
LOWEST DAILY MEAN	0.14 Nov 23	0.09 Aug 12	a0.01 Aug 23 2000
ANNUAL SEVEN-DAY MINIMUM	0.19 Nov 17	0.11 Aug 7	0.01 Oct 28 2000
MAXIMUM PEAK FLOW		250 May 13	270 Nov 9 2000
MAXIMUM PEAK STAGE		8.55 May 13	9.06 Nov 9 2000
INSTANTANEOUS LOW FLOW		b0.08 Aug 12	
ANNUAL RUNOFF (CFSM)	1.35	1.91	1.56
ANNUAL RUNOFF (INCHES)	18.40	25.89	21.25
10 PERCENT EXCEEDS	7.8	12	9.0
50 PERCENT EXCEEDS	1.2	2.4	1.5
90 PERCENT EXCEEDS	0.27	0.24	0.23

a Many days.

b Also occurred Aug. 13, 14.



CUMBERLAND RIVER BASIN

03432390 SPENCER CREEK NEAR FRANKLIN, TN

LOCATION.--Lat 35°56'35", long 86°51'18", Williamson County, Hydrologic Unit 05130204, on right downstream side of bridge on U.S. Highway 31, 1.5 mi northeast of Franklin.

DRAINAGE AREA.--10.3 mi².

PERIOD OF RECORD.--April 1999 to current year. Occasional low-flow measurements, water year 1959, 1975.

GAGE.--Data collection platform and crest-stage gage at present.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 517 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1145	*1,030	*9.66	Mar 17	0530	833	9.23
Nov 29	2100	622	8.66	Mar 17	2100	740	9.00
Dec 8	0715	726	8.96	May 13	0830	776	9.09
Jan 24	0615	901	9.39				

Minimum discharge, 1.6 ft³/s, June 21, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	3.3	48	5.9	53	6.2	89	57	4.0	3.9	3.8	3.5
2	2.6	3.1	30	5.6	24	6.3	57	29	3.3	3.4	3.5	2.8
3	2.9	3.9	23	5.3	23	6.0	38	19	2.9	33	3.1	2.6
4	3.2	3.0	20	5.1	19	5.5	28	37	9.0	7.5	2.9	2.6
5	19	2.8	17	5.0	16	5.2	22	17	15	5.1	2.8	2.7
6	12	2.5	17	6.2	18	4.9	19	14	5.3	4.3	2.8	2.4
7	4.8	2.4	19	5.5	23	4.8	16	11	4.2	3.4	2.5	2.5
8	3.9	2.4	174	5.0	19	4.6	16	9.2	3.3	4.5	2.4	2.4
9	3.3	2.4	55	4.6	17	16	15	9.1	3.0	8.6	2.3	2.4
10	3.2	2.3	39	4.7	19	7.0	12	15	2.9	20	2.3	2.4
11	4.4	2.3	29	11	15	6.1	11	8.8	2.7	8.7	2.3	2.4
12	46	2.2	29	6.2	13	15	14	7.2	2.4	14	2.1	2.4
13	46	2.2	72	5.5	12	9.7	10	149	4.1	10	2.0	2.5
14	86	2.1	81	5.0	11	8.6	9.0	31	2.7	7.5	2.5	3.1
15	17	2.0	45	4.5	10	8.0	8.0	17	2.4	6.0	14	11
16	13	1.9	32	4.2	9.8	57	7.1	12	2.2	5.1	15	5.7
17	9.5	1.9	40	4.4	8.4	384	6.8	15	2.2	4.1	6.3	3.7
18	8.2	1.9	26	9.3	7.8	226	6.4	11	2.1	4.5	4.8	15
19	7.5	3.1	22	51	7.3	109	5.8	7.6	2.1	4.8	4.1	5.2
20	7.1	3.3	18	20	26	174	5.4	6.4	2.0	3.9	3.8	43
21	5.6	2.4	16	16	10	87	4.9	5.4	1.8	7.9	3.2	15
22	5.3	2.3	13	20	8.7	55	5.5	4.6	1.8	5.0	20	8.0
23	6.3	2.3	23	188	7.9	39	4.3	3.9	2.1	18	13	6.0
24	28	24	14	351	7.3	29	27	3.6	3.2	6.8	7.5	5.0
25	12	3.8	13	121	6.9	24	8.9	3.4	2.9	4.9	8.1	6.9
26	5.9	2.6	12	68	14	69	6.0	3.5	2.5	4.2	5.4	145
27	5.3	20	9.5	46	7.4	29	5.4	3.0	3.4	3.6	4.2	114
28	4.8	6.5	8.5	34	6.7	24	21	2.9	3.9	3.5	3.7	26
29	4.3	364	7.6	27	---	34	6.6	2.7	2.9	e3.5	3.1	16
30	4.2	114	6.7	24	---	43	5.7	29	3.6	e3.60	2.9	13
31	3.5	---	6.2	20	---	204	---	5.9	---	e3.50	3.1	---
MEAN	12.50	19.76	31.15	35.13	15.01	54.87	16.36	17.75	3.530	7.316	5.145	15.84
MAX	86	364	174	351	53	384	89	149	15	33	20	145
MIN	2.6	1.9	6.2	4.2	6.7	4.6	4.3	2.7	1.8	3.4	2.0	2.4

e Estimated

03432390 SPENCER CREEK NEAR FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	6.441	16.66	20.06	22.85	34.05	31.79	16.61	22.29	7.308	5.623	5.342	6.976
MAX	12.5	22.4	31.1	35.1	63.9	54.9	29.9	44.3	12.8	7.32	8.75	15.8
(WY)	2002	2001	2002	2002	2001	2002	2000	2000	2001	2002	2001	2002
MIN	1.80	7.77	9.54	15.4	15.0	19.2	9.83	13.1	3.53	3.42	2.73	2.44
(WY)	2001	2000	2000	2000	2002	2000	2001	1999	2002	2000	1999	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

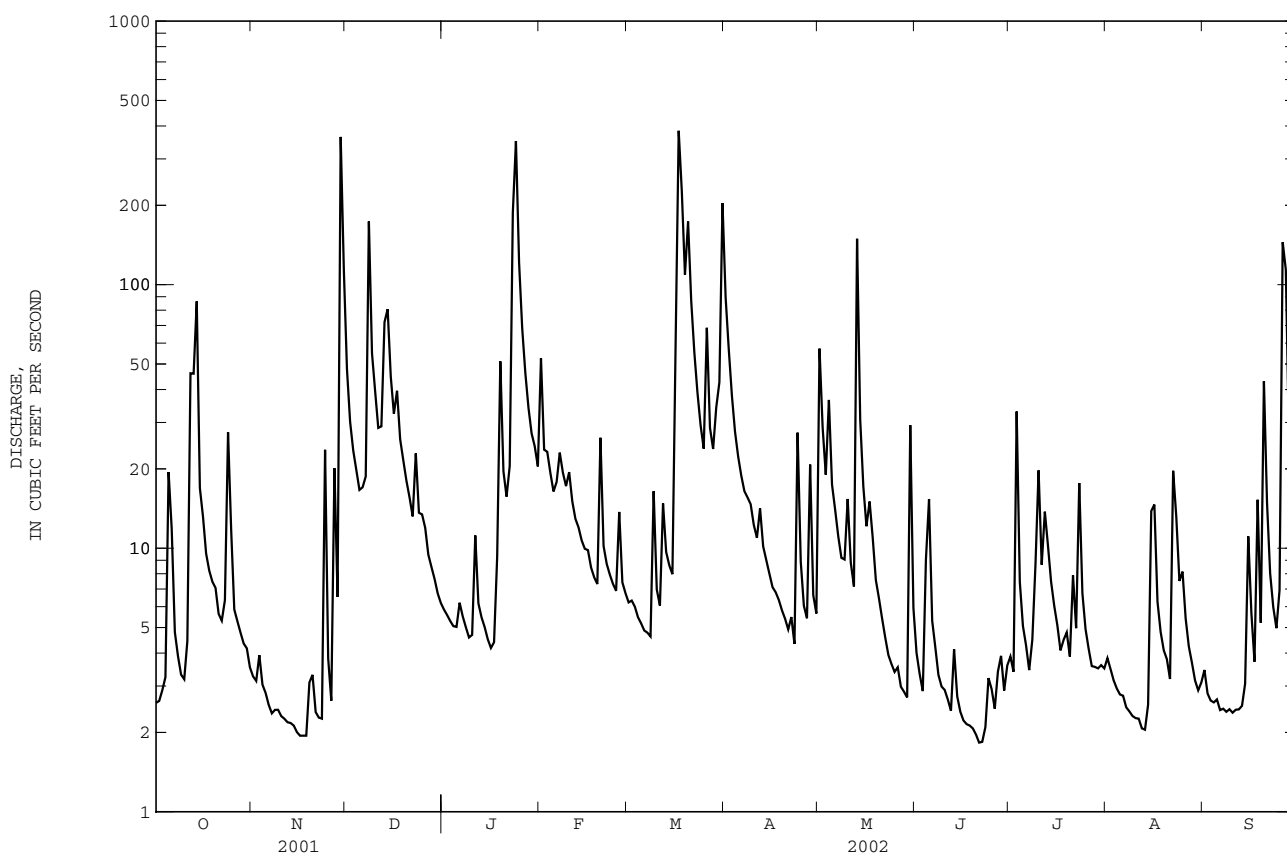
FOR 2002 WATER YEAR

WATER YEARS 1999 - 2002

ANNUAL MEAN	18.17		19.63		16.86	
HIGHEST ANNUAL MEAN					19.6	
LOWEST ANNUAL MEAN					14.5	
HIGHEST DAILY MEAN	453	Feb 16	384	Mar 17	550	May 25 2000
LOWEST DAILY MEAN	1.9	Nov 16	1.8	Jun 21	0.78	Sep 18 1999
ANNUAL SEVEN-DAY MINIMUM	2.0	Nov 12	2.0	Jun 17	0.99	Sep 6 1999
MAXIMUM PEAK FLOW			1030	Nov 29	3250	May 25 2000
MAXIMUM PEAK STAGE			9.66	Nov 29	11.75	May 25 2000
INSTANTANEOUS LOW FLOW			1.6	Jun 21	0.77	Jun 30 2000
10 PERCENT EXCEEDS	39		39		31	
50 PERCENT EXCEEDS	6.7		6.6		6.2	
90 PERCENT EXCEEDS	2.6		2.4		2.4	

a From high-water mark.

b Also occurred June 22.



CUMBERLAND RIVER BASIN

03432400 HARPETH RIVER BELOW FRANKLIN, TN

LOCATION.--Lat 35°56'53", long 86°52'54", Williamson County, Hydrologic Unit 05130204, on right bank 0.1 mi below bridge on U.S. Highway 431, 1.2 mi downstream from Spence Creek, 1.8 mi northwest of the courthouse in Franklin, and at mile 84.3.

DRAINAGE AREA.--210 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--August 1988 to September 1999, discharge for gage height of 6.00 ft and below only, October 1999 to current year.

GAGE.--Data collection platform.

REMARKS.--Records good except for estimated daily discharges Feb. 9-11, which are fair. Flow is affected by Franklin sewage treatment plant outflow 1.1 mi upstream. Periodic observations of water temperature and specific conductance are published in the report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 28.97 ft, Feb. 4, 1990; minimum discharge, 3.0 ft³/s, Aug. 19, 1988, Sept. 12, 18, 1999; minimum daily, 4.1 ft³/s, Aug. 18, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	2330	6,000	19.68	Mar 31	2045	5,290	18.47
Jan 25	0015	*9,170	*25.49	May 13	1715	4,220	16.12
Mar 18	0900	7,870	23.39				

Minimum discharge, 5.2 ft³/s, Sept. 14.

Minimum daily discharge, 9.5 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	43	1400	122	612	141	2930	423	56	16	14	12
2	12	40	863	112	514	144	1310	281	48	20	14	11
3	11	42	647	107	446	143	875	585	43	57	14	11
4	11	44	512	105	413	131	655	872	41	27	14	11
5	21	41	403	101	367	119	528	592	105	23	12	11
6	137	33	345	101	347	113	440	383	62	15	11	9.7
7	119	32	369	97	411	111	382	279	53	13	11	10
8	53	30	1830	90	447	113	342	215	40	14	11	10
9	37	28	1410	83	e500	135	320	179	35	19	11	11
10	29	26	812	81	e450	129	278	173	31	30	10	10
11	24	26	643	101	e400	116	249	168	27	79	10	10
12	143	25	512	94	332	152	244	151	28	66	11	10
13	160	26	1120	87	304	450	223	2380	39	45	12	9.5
14	1240	25	1630	79	275	318	209	1550	33	29	12	10
15	650	23	1060	74	250	250	184	693	25	30	26	17
16	309	31	709	71	238	295	161	445	22	20	32	135
17	197	30	604	75	217	4580	145	346	24	17	21	26
18	144	29	540	93	192	7420	135	375	25	21	17	34
19	114	24	423	786	176	2750	118	271	18	22	16	42
20	94	29	342	959	250	2230	109	212	17	15	15	77
21	78	26	280	577	242	1580	108	177	22	17	15	72
22	66	23	239	409	197	1050	101	153	21	17	26	29
23	60	22	367	3220	175	798	89	136	14	51	24	21
24	83	71	454	7850	166	639	112	122	17	32	27	16
25	163	48	330	7410	160	525	105	116	22	19	19	18
26	108	50	268	1900	174	822	94	103	16	15	30	346
27	81	97	224	1190	159	682	88	88	15	18	19	960
28	61	286	197	867	147	522	184	80	19	17	14	346
29	53	2650	176	685	---	476	139	81	21	18	15	171
30	49	4540	156	581	---	1000	96	101	20	19	14	109
31	46	---	140	493	---	3590	---	70	---	18	12	---
TOTAL	4366	8440	19005	28600	8561	31524	10953	11800	959	819	509	2565.2
MEAN	140.8	281.3	613.1	922.6	305.8	1017	365.1	380.6	31.97	26.42	16.42	85.51
MAX	1240	4540	1830	7850	612	7420	2930	2380	105	79	32	960
MIN	11	22	140	71	147	111	88	70	14	13	10	9.5

e Estimated

03432400 HARPETH RIVER BELOW FRANKLIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	42.49	103.5	396.3	495.4	695.5	660.8	310.7	223.9	62.97	32.64	32.05	29.42
MAX	141	281	613	923	1273	1017	748	381	111	45.9	131	85.5
(WY)	2002	2002	2002	2002	2001	2002	2000	2002	2001	1994	2001	2002
MIN	7.68	16.7	115	173	306	458	110	66.8	32.0	17.8	8.22	10.0
(WY)	1994	1999	2000	2000	2002	2001	1999	2001	2002	2000	1988	1993

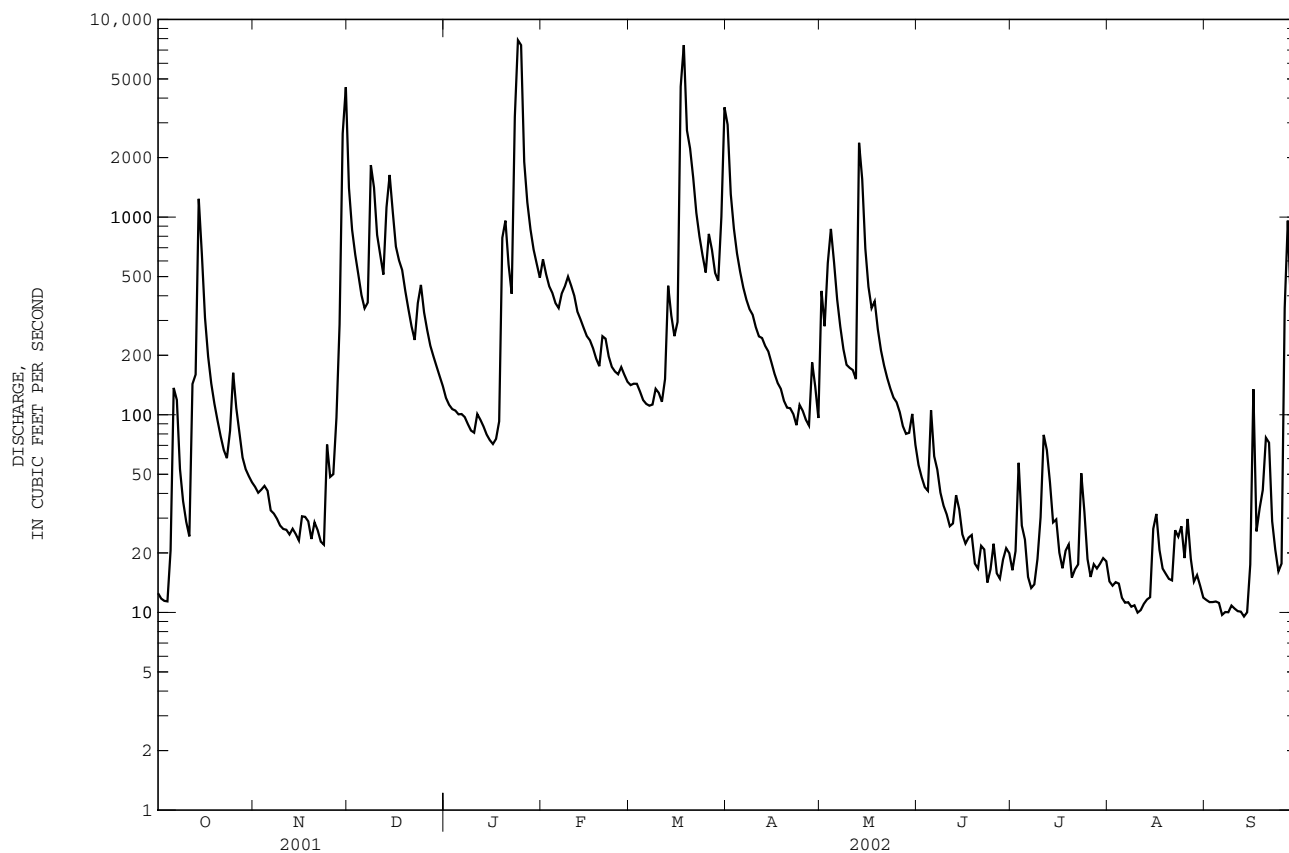
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1988 - 2002

ANNUAL TOTAL	110508	128101.2	
ANNUAL MEAN	302.8	351.0	275.6
HIGHEST ANNUAL MEAN			351
LOWEST ANNUAL MEAN			207
HIGHEST DAILY MEAN	8650	Feb 17	7850
LOWEST DAILY MEAN	11	Jul 16	9.5
ANNUAL SEVEN-DAY MINIMUM	14	Jul 16	10
MAXIMUM PEAK FLOW			9170
MAXIMUM PEAK STAGE			25.49
INSTANTANEOUS LOW FLOW			5.2
10 PERCENT EXCEEDS	668	740	606
50 PERCENT EXCEEDS	88	101	78
90 PERCENT EXCEEDS	23	14	11



CUMBERLAND RIVER BASIN

03433500 HARPEETH RIVER AT BELLEVUE, TN

LOCATION.--Lat 36°03'16", long 86°55'42", Davidson County, Hydrologic Unit 05130204, on right bank 45 ft upstream from bridge on State Highway 100, 0.1 mi downstream from Little Harpeth River, 0.9 mi southeast of Bellevue, and at mile 62.1.

DRAINAGE AREA.--408 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--April 1920 to current year. Monthly discharge only November 1929 to December 1931, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1920-30, 1932-35. WSP 1386: 1948. WSP 1556: Drainage area. WSP 1910: 1960.

GAGE.--Data collection platform. Datum of gage is 541.04 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Apr. 11, 1920, to Oct. 31, 1929, Jan. 1, 1932, to Sept. 30, 1933, nonrecording gage at site 2.8 mi downstream at datum 7.85 ft lower.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Feb. 13, 1948.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	1000	10,600	15.16	Mar 18	0100	13,900	17.39
Jan 25	0530	*14,400	*17.69	Mar 31	2330	8,360	13.09

Minimum discharge, 11 ft³/s, Aug. 10, Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	75	2640	263	1100	271	5790	853	140	43	35	22
2	16	66	1370	240	1010	270	2520	730	118	39	27	19
3	15	63	977	224	866	273	1780	1040	104	114	22	17
4	14	67	761	216	799	252	1430	1380	93	103	21	16
5	20	64	598	204	699	224	1180	1330	157	58	20	15
6	72	56	484	207	647	213	999	910	160	45	18	14
7	221	42	461	206	696	207	869	684	123	30	15	15
8	127	40	2840	191	767	209	783	529	103	25	13	14
9	80	40	2910	177	729	230	733	429	84	35	13	13
10	61	40	1530	173	690	288	643	381	71	46	12	12
11	56	34	1180	199	699	248	581	391	63	86	14	13
12	146	35	954	201	637	276	579	341	58	362	15	13
13	280	33	1880	191	555	623	542	2690	57	256	22	13
14	1630	31	2840	174	492	614	495	3180	67	141	19	14
15	1210	34	2010	159	453	510	446	1450	59	89	40	38
16	561	29	1330	149	427	610	393	983	49	87	64	76
17	387	29	1110	146	394	6930	355	780	44	63	80	142
18	294	32	1050	173	360	13000	326	763	41	68	64	57
19	228	32	856	771	327	7050	290	590	45	63	53	51
20	193	38	706	1580	424	5150	259	455	36	52	37	79
21	145	44	596	999	491	3540	250	371	32	39	30	188
22	135	43	511	754	406	2210	234	313	33	39	31	119
23	129	41	554	3690	354	1720	204	275	34	41	33	66
24	118	55	761	11500	327	1460	298	246	34	64	56	49
25	276	134	609	13500	314	1230	296	225	76	57	54	41
26	237	102	517	4690	336	1520	232	220	61	39	45	483
27	162	124	447	2050	322	1510	211	191	50	30	52	2500
28	118	330	398	1460	290	1180	255	171	44	29	39	1000
29	97	3960	359	1170	---	1040	418	160	42	29	25	492
30	86	9540	322	1030	---	1430	248	154	44	30	24	306
31	80	---	291	907	---	5300	---	200	---	37	26	---
TOTAL	7215	15253	33852	47594	15611	59588	23639	22415	2122	2239	1019	5897
MEAN	232.7	508.4	1092	1535	557.5	1922	788.0	723.1	70.73	72.23	32.87	196.6
MAX	1630	9540	2910	13500	1100	13000	5790	3180	160	362	80	2500
MIN	14	29	291	146	290	207	204	154	32	25	12	12
CFSM	0.57	1.25	2.68	3.76	1.37	4.71	1.93	1.77	0.17	0.18	0.08	0.48
IN.	0.66	1.39	3.09	4.34	1.42	5.43	2.16	2.04	0.19	0.20	0.09	0.54

03433500 HARPETH RIVER AT BELLEVUE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2002, BY WATER YEAR (WY)

MEAN	113.3	365.6	832.9	1165	1280	1340	872.6	566.5	280.5	143.0	112.5	117.0
MAX	953	1678	3952	4305	3606	4263	2579	3232	1834	827	663	1685
(WY)	1976	1987	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	1.90	10.4	32.3	40.5	90.2	167	138	38.7	13.1	15.6	5.76	1.28
(WY)	1932	1940	1940	1940	1941	1941	1967	1941	1988	1954	1954	1948

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

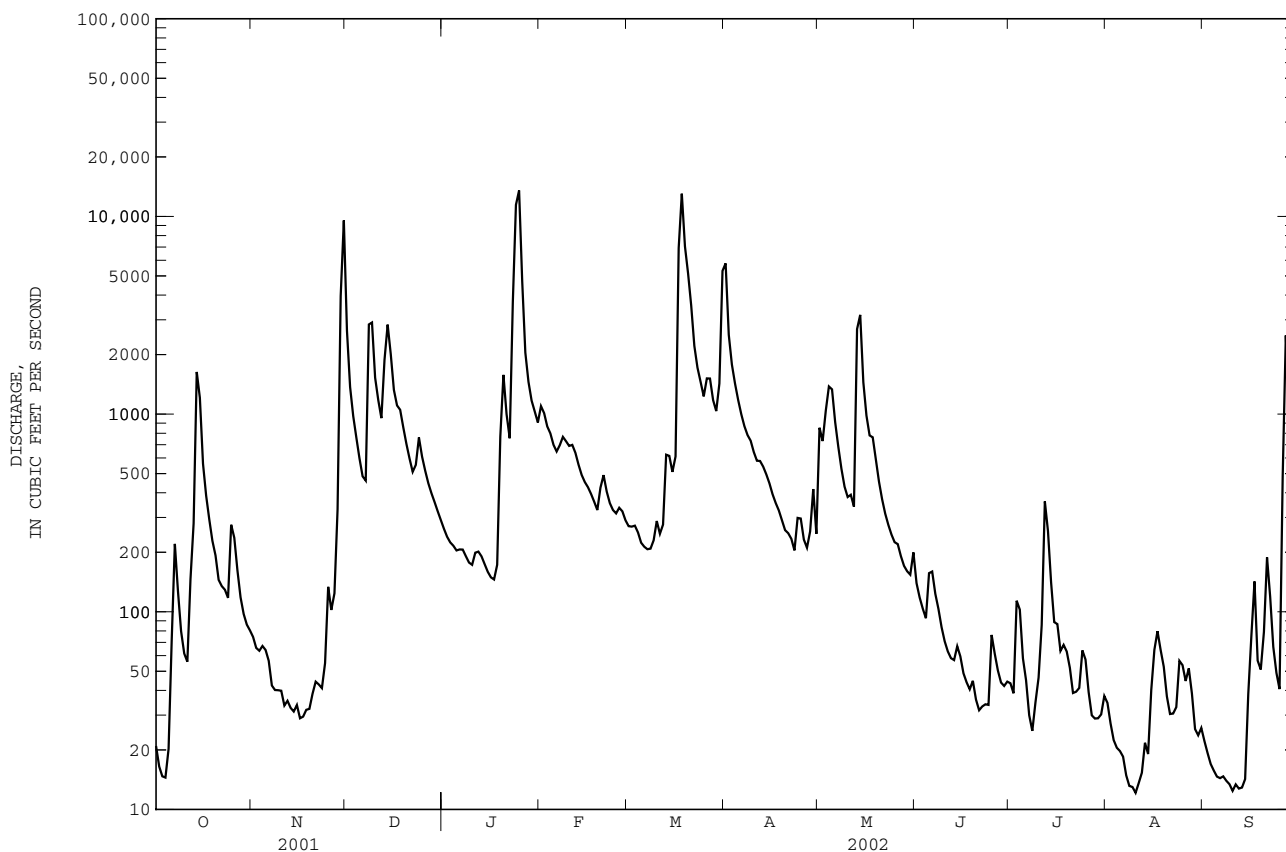
WATER YEARS 1920 - 2002

ANNUAL TOTAL	201710		236444									
ANNUAL MEAN	552.6		647.8							595.7		
HIGHEST ANNUAL MEAN										1157		1973
LOWEST ANNUAL MEAN										137		1941
HIGHEST DAILY MEAN	14100	Feb 17	13500	Jan 25	32400	Mar 13	1975					
LOWEST DAILY MEAN	14	Oct 4	12	Aug 10	0.00	Oct 5	1922					
ANNUAL SEVEN-DAY MINIMUM	22	Sep 29	13	Sep 8	0.07	Oct 4	1922					
MAXIMUM PEAK FLOW			14400	Jan 25	40000	Feb 13	1948					
MAXIMUM PEAK STAGE			17.69	Jan 25	a24.34	Feb 13	1948					
INSTANTANEOUS LOW FLOW			b11	Aug 10	c0.00	Oct 5	1922					
ANNUAL RUNOFF (CFSM)	1.35		1.59		1.46							
ANNUAL RUNOFF (INCHES)	18.39		21.56		19.84							
10 PERCENT EXCEEDS	1160		1430		1380							
50 PERCENT EXCEEDS	173		207		190							
90 PERCENT EXCEEDS	35		28		17							

a From floodmarks.

b Also occurred Sept. 12.

c Also occurred Oct. 6-10, 1922.



CUMBERLAND RIVER BASIN

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN

LOCATION.--Lat 36°07'19", long 87°05'56", Cheatham County, Hydrologic Unit 05130204, on right bank 400 ft upstream from bridge on U.S. Highway 70, 1.7 mi northeast of Kingston Springs, 3.0 mi downstream from Turnbull Creek, and at mile 32.4.

DRAINAGE AREA.--681 mi², includes 15 mi² without surface drainage.

PERIOD OF RECORD.--October 1924 to current year. Prior to July 1925 monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 953: 1927, 1933, 1935-36. WSP 1033: 1927(M), 1932-33(M), 1935(M), 1937(M). WSP 1706: 1945(P). WSP 2110: Drainage area.

GAGE.--Data collection platform. Datum of gage is 447.04 ft above NGVD of 1929. July 8, 1925, to Jan. 22, 1939, nonrecording gage at site 150 ft downstream, and Jan. 22, 1939, to July 26, 1988, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of Jan. 7, 1946. Flood of March 1902 reached a stage about 3 ft lower than that of Jan. 7, 1946.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	unknown	18,100	20.46	Mar 18	unknown	*28,900	*25.10
Jan 24	unknown	17,900	20.32	Mar 31	1630	10,900	14.32
Jan 25	1900	14,000	17.36				

Minimum discharge, 29 ft³/s, Sept. 12, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	149	6030	479	2150	515	8760	1070	286	154	114	63
2	60	142	2620	435	2110	490	4370	1340	231	135	103	76
3	51	138	1870	410	1770	488	2910	1180	209	269	91	59
4	45	132	1460	380	1610	454	2200	1600	193	340	79	51
5	51	127	1160	370	1400	422	1800	2020	189	241	72	48
6	175	125	949	372	1270	394	1530	1370	1670	177	68	42
7	158	121	856	366	1290	376	1350	1050	653	144	61	42
8	255	111	2360	346	1430	363	1210	830	396	121	57	40
9	178	107	4680	328	1390	463	1140	675	320	e150	53	39
10	130	104	2610	321	e1280	647	1020	582	274	e180	50	37
11	108	100	1920	388	e1150	548	910	565	242	461	59	36
12	253	98	1600	389	e1300	590	888	515	221	275	72	32
13	439	95	4170	364	e1050	855	854	3410	207	592	60	31
14	2390	95	4530	343	917	1150	801	5570	211	394	64	33
15	2450	93	3620	317	836	959	728	2450	199	264	100	35
16	1120	92	2430	298	784	1000	647	1580	185	204	133	97
17	653	91	1990	287	727	5610	576	1190	171	180	253	136
18	440	88	1940	349	658	e18000	537	1130	158	154	155	172
19	341	93	1610	1160	593	9490	504	946	144	142	123	107
20	284	104	1330	2500	719	7770	457	754	144	130	108	108
21	244	104	1110	1830	889	5700	416	618	137	122	99	284
22	212	97	962	1370	777	3810	411	526	125	116	82	256
23	189	98	1090	3140	670	2860	370	463	118	155	73	170
24	175	119	1270	e14500	603	2290	500	418	122	202	96	119
25	327	229	1160	e17000	562	1890	671	379	440	148	115	97
26	394	234	978	7740	637	2380	447	415	362	145	134	705
27	296	1280	863	3560	634	2520	386	364	214	120	113	6240
28	233	860	765	2650	560	1930	370	315	226	102	88	2170
29	193	8250	687	2140	---	1660	541	291	182	112	86	1040
30	172	13800	600	1960	---	1870	458	273	156	123	71	643
31	159	---	534	1910	---	7370	---	266	---	134	62	---
TOTAL	12241	27276	59754	68002	29766	84864	37762	34155	8385	6186	2894	13008
MEAN	394.9	909.2	1928	2194	1063	2738	1259	1102	279.5	199.5	93.35	433.6
MAX	2450	13800	6030	17000	2150	18000	8760	5570	1670	592	253	6240
MIN	45	88	534	287	560	363	370	266	118	102	50	31
MED	212	109	1460	410	903	1150	699	754	208	154	86	86
CFSM	0.58	1.34	2.83	3.22	1.56	4.02	1.85	1.62	0.41	0.29	0.14	0.64
IN.	0.67	1.49	3.26	3.71	1.63	4.64	2.06	1.87	0.46	0.34	0.16	0.71

e Estimated

03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	226.3	615.8	1305	1867	2050	2159	1475	1020	522.9	270.8	209.7	214.3
MAX	1516	2761	6274	6975	6078	6806	3942	5107	2849	1071	1099	2530
(WY)	1976	1980	1927	1937	1950	1975	1927	1984	1928	1989	1926	1979
MIN	28.9	63.2	94.9	116	187	279	269	99.3	59.0	62.7	38.5	25.0
(WY)	1932	1955	1936	1940	1941	1941	1967	1941	1988	1954	1954	1939

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

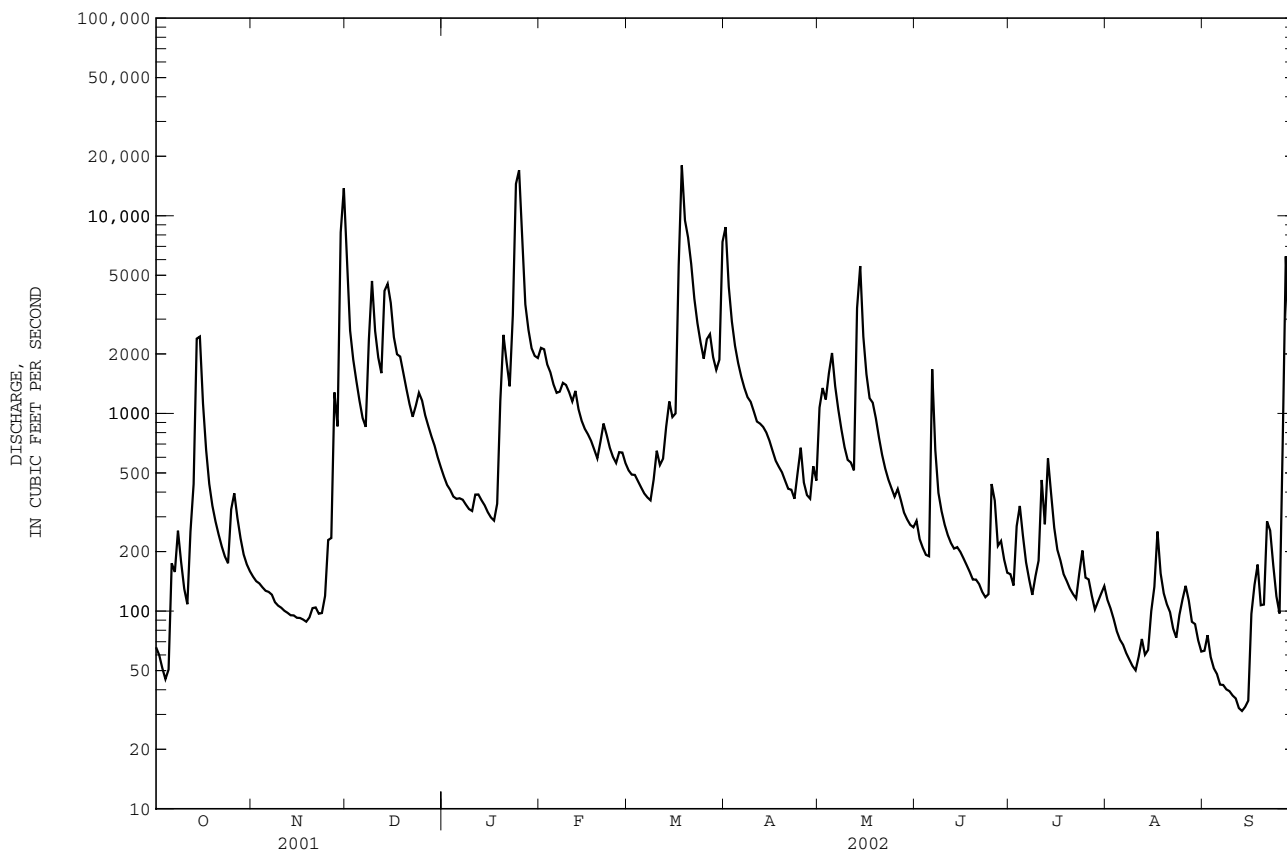
WATER YEARS 1925 - 2002

ANNUAL TOTAL	322836	384293	
ANNUAL MEAN	884.5	1053	988.2
HIGHEST ANNUAL MEAN			2000
LOWEST ANNUAL MEAN			41.3
HIGHEST DAILY MEAN	16800	Feb 17	43100
LOWEST DAILY MEAN	45	Oct 4	16
ANNUAL SEVEN-DAY MINIMUM	55	Sep 13	18
MAXIMUM PEAK FLOW			60000
MAXIMUM PEAK STAGE			b32.20
INSTANTANEOUS LOW FLOW			12
ANNUAL RUNOFF (CFSM)	1.30	1.55	1.45
ANNUAL RUNOFF (INCHES)	17.64	20.99	19.72
10 PERCENT EXCEEDS	1930	2370	2230
50 PERCENT EXCEEDS	277	380	348
90 PERCENT EXCEEDS	89	87	71

a From high-water mark.

b From high-water mark in gage house.

c Also occurred Sept. 13.



CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°19'22", long 87°13'42", Cheatham County, Hydrologic Unit 05130205, on left bank 0.4 mi downstream from Cheatham Dam, 2.0 mi southwest of Neptune, 2.6 mi upstream from Half Pone Creek, 9.7 mi west of Ashland City, and at mile 148.4.

DRAINAGE AREA.--14,163 mi².

PERIOD OF RECORD.--February 1993 to September 1997, October 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1993 to September 1997, October 1998 to current year.

pH: February 1993 to September 1997, October 1998 to current year.

WATER TEMPERATURE: February 1993 to September 1997, October 1998 to current year.

DISSOLVED OXYGEN: February 1993 to September 1997, October 1998 to current year.

INSTRUMENTATION.--Data collection platform and water-quality monitor.

REMARKS.--Flow regulated by Cheatham Dam and other reservoirs above station. Interruptions in the record were due to instrument malfunctions. Records for water temperature are rated excellent, specific conductance are rated good except for the period from June to Sept. rated poor, p.H. records are rated fair and dissolved oxygen is rated poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 298 microsiemens, May 4, 1995; minimum, 152 microsiemens, Jan. 23, 1999.

pH: Maximum, 9.0 units, March 11, 13, 2002; minimum, 6.0 units, June 13, 1993.

WATER TEMPERATURE: Maximum, 28.4°C, Aug. 2, 3, 1995; minimum, 2.3°C, Feb. 6, 1996.

DISSOLVED OXYGEN: Maximum, 16.0 mg/L, Jan. 16, 2001; minimum, 3.7 mg/L, June 29, 1994.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 290 microsiemens, Dec. 26; minimum, 169 microsiemens, April 25.

pH: Maximum, 9.0 units, March 11, 13; minimum, 7.0 units, several days in September.

WATER TEMPERATURE: Maximum, 28.6°C, Aug. 6; minimum, 5.5°C, Jan. 7, 8.

DISSOLVED OXYGEN: Maximum, 15.5 mg/L, March 11.

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	217	211	213	251	240	244	239	205	223	277	272	274
2	219	210	213	248	243	245	262	239	253	283	274	279
3	213	211	212	248	238	243	262	256	260	286	275	282
4	212	211	212	245	239	242	263	258	261	284	279	281
5	214	211	212	246	242	244	267	263	265	279	273	276
6	227	212	218	248	241	244	269	263	265	285	277	280
7	222	215	220	246	238	242	269	263	265	286	278	282
8	224	214	219	245	240	243	270	259	264	284	280	282
9	222	214	218	248	243	246	288	264	274	287	281	284
10	225	215	219	243	236	239	275	254	264	288	280	284
11	219	215	217	247	238	240	277	266	271	281	277	279
12	219	210	214	249	246	247	266	233	259	289	278	284
13	229	215	223	249	244	246	260	233	246	284	275	280
14	234	220	227	248	243	245	264	236	251	278	273	275
15	237	213	224	248	246	247	265	256	261	276	272	274
16	249	234	240	249	244	247	262	260	261	275	263	267
17	243	233	236	244	235	238	266	259	262	265	261	263
18	241	231	236	244	237	241	270	266	268	261	255	257
19	237	229	234	246	244	244	270	267	268	259	250	256
20	244	233	236	246	242	243	276	263	269	255	245	250
21	251	244	249	243	239	242	278	275	277	258	243	250
22	253	249	251	243	239	241	285	275	281	254	246	249
23	253	248	250	242	236	239	284	274	278	254	236	242
24	248	241	243	242	231	235	281	275	278	253	196	219
25	245	236	241	245	231	236	280	277	278	228	190	212
26	241	229	235	246	240	243	290	278	284	232	222	228
27	247	234	243	255	240	244	284	276	280	245	217	233
28	251	245	248	257	229	243	277	266	274	250	243	246
29	250	234	241	230	184	214	274	266	269	244	239	242
30	253	237	247	205	182	192	276	271	273	250	241	245
31	248	243	245	---	---	---	277	272	274	242	235	239
MONTH	253	210	230	257	182	240	290	205	266	289	190	261

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

SPECIFIC CONDUCTANCE, in US/CM @ 25C, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	237	223	230	232	222	226	216	207	212	214	197	207
2	228	223	225	230	217	222	220	212	216	214	200	208
3	230	222	228	230	220	225	218	213	215	225	208	214
4	222	217	219	230	222	226	220	218	219	228	215	223
5	223	218	221	231	175	197	226	218	221	231	224	228
6	224	222	224	203	195	198	224	211	218	231	220	226
7	226	211	219	206	197	200	212	205	208	228	215	220
8	228	216	222	214	202	206	214	206	209	231	218	226
9	230	218	225	221	210	214	215	210	211	231	219	224
10	232	223	227	219	205	210	218	209	211	221	214	217
11	234	223	228	220	210	215	215	205	208	225	214	220
12	238	226	231	220	212	217	212	202	206	220	210	215
13	233	226	229	221	213	216	209	199	202	212	203	208
14	233	228	231	221	213	215	207	200	203	216	199	205
15	236	230	233	226	218	221	204	200	201	210	201	206
16	236	231	234	238	226	231	200	198	199	213	204	208
17	237	232	234	232	194	217	203	199	201	218	205	211
18	237	230	233	199	172	186	210	202	206	221	204	214
19	238	232	235	223	197	215	212	202	206	220	210	214
20	240	230	234	221	215	218	233	204	209	214	207	210
21	242	233	238	240	218	229	213	208	210	214	205	210
22	239	233	236	241	236	240	209	207	208	214	206	209
23	240	231	234	236	211	220	213	208	209	215	205	209
24	241	234	238	217	211	213	212	179	202	222	206	214
25	243	232	236	222	217	219	208	169	180	217	211	214
26	241	232	236	225	220	223	224	207	214	219	212	215
27	239	231	233	224	213	218	207	200	202	216	212	213
28	241	226	233	220	212	218	209	201	204	218	210	213
29	---	---	---	224	212	220	222	209	214	212	209	210
30	---	---	---	224	216	220	213	204	209	213	206	210
31	---	---	---	224	209	217	---	---	---	214	204	209
MONTH	243	211	230	241	172	217	233	169	208	231	197	214
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	213	205	208	224	220	221	217	209	212	199	194	197
2	215	208	210	223	218	221	221	211	216	201	195	198
3	215	209	212	225	216	220	219	213	216	201	195	198
4	217	211	213	223	219	221	220	214	217	200	195	198
5	220	215	217	229	218	222	225	215	219	198	192	195
6	224	214	217	224	219	222	223	215	219	199	192	196
7	240	224	232	224	218	221	227	216	220	199	195	197
8	229	222	226	221	216	218	225	216	220	201	197	199
9	237	226	231	224	215	219	225	219	221	209	200	204
10	237	230	233	220	215	218	230	222	226	205	199	201
11	239	233	235	223	214	217	231	223	227	206	197	202
12	247	237	241	225	220	223	227	220	223	203	195	200
13	238	228	236	223	214	219	224	219	221	197	192	194
14	239	231	233	221	216	218	227	203	220	195	188	190
15	244	233	238	225	218	220	207	204	206	192	187	190
16	234	229	232	230	224	227	207	202	203	192	186	190
17	232	227	229	230	224	226	209	203	206	209	186	198
18	230	225	228	231	221	226	213	204	208	209	206	208
19	232	226	229	238	223	229	210	206	208	211	206	208
20	232	226	229	224	213	220	212	208	209	210	206	209
21	233	225	228	220	216	218	213	209	211	213	208	210
22	232	223	227	223	217	220	215	211	213	212	205	210
23	229	224	226	223	213	218	217	215	216	213	203	208
24	231	225	227	216	212	215	218	212	215	213	207	210
25	232	225	228	225	214	217	213	210	212	216	206	211
26	231	224	227	222	213	217	213	200	206	212	184	203
27	230	220	226	217	211	214	205	198	202	203	173	189
28	230	223	225	216	207	212	206	200	203	213	199	208
29	229	222	224	223	211	216	202	197	200	223	210	219
30	225	219	221	217	209	213	201	195	199	223	208	216
31	---	---	---	213	206	210	201	195	198	---	---	---
MONTH	247	205	226	238	206	219	231	195	213	223	173	202

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

PH, WH, FIELD, in (STANDARD UNITS), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.2	7.9	8.0	7.8	7.4	7.2	8.0	8.0	7.8	7.8	8.5	8.3
2	8.0	7.7	8.0	7.8	7.5	7.4	8.1	8.0	7.8	7.8	8.5	8.4
3	8.1	7.9	7.9	7.7	7.5	7.4	8.1	8.0	7.9	7.8	8.5	8.4
4	8.0	7.9	7.9	7.7	7.5	7.5	8.1	8.0	7.9	7.9	8.7	8.4
5	8.0	7.9	7.8	7.7	7.5	7.5	8.2	8.1	7.9	7.9	8.7	8.4
6	8.0	7.8	7.8	7.7	7.6	7.5	8.1	8.0	7.9	7.9	8.8	8.6
7	7.9	7.7	7.9	7.7	7.6	7.5	8.2	8.0	7.9	7.9	8.9	8.7
8	7.9	7.6	7.9	7.7	7.6	7.5	8.2	8.1	7.9	7.9	8.9	8.7
9	7.8	7.6	7.9	7.8	7.6	7.5	8.2	8.1	7.9	7.9	8.8	8.7
10	7.9	7.6	8.0	7.7	7.6	7.5	8.3	8.2	7.9	7.9	8.9	8.8
11	7.9	7.7	7.8	7.5	7.6	7.6	8.4	8.3	8.0	7.9	9.0	8.8
12	7.8	7.6	7.8	7.5	7.6	7.6	8.3	8.3	8.0	7.9	8.9	8.8
13	7.7	7.6	7.8	7.7	7.6	7.6	8.4	8.3	8.0	8.0	8.9	8.8
14	7.8	7.5	7.8	7.7	7.6	7.5	8.5	8.3	8.0	8.0	8.9	8.8
15	7.8	7.6	7.8	7.7	7.6	7.6	8.4	8.3	8.0	8.0	9.0	8.8
16	7.9	7.7	7.8	7.7	7.6	7.6	8.6	8.3	8.1	8.0	8.9	8.8
17	8.0	7.9	7.8	7.6	7.6	7.6	8.5	8.4	8.1	8.0	8.8	8.2
18	8.1	7.9	7.8	7.6	7.7	7.7	8.6	8.4	8.1	8.0	8.2	7.8
19	8.0	7.9	7.7	7.5	7.7	7.6	8.6	8.4	8.2	8.1	7.9	7.8
20	8.1	7.9	7.7	7.6	7.7	7.7	8.5	8.3	8.2	8.1	7.8	7.8
21	8.0	7.8	7.8	7.6	7.7	7.7	8.4	8.3	8.2	8.1	7.8	7.8
22	7.9	7.7	7.8	7.6	7.8	7.7	8.4	8.2	8.2	8.1	7.8	7.8
23	7.8	7.6	7.8	7.6	7.8	7.7	8.4	8.3	8.3	8.2	7.9	7.8
24	7.8	7.7	7.8	7.6	7.8	7.8	8.3	7.8	8.4	8.2	7.8	7.8
25	8.0	7.6	7.7	7.6	7.9	7.8	7.9	7.8	8.5	8.3	7.9	7.8
26	8.0	7.7	7.8	7.6	7.9	7.8	7.9	7.8	8.4	8.3	7.9	7.8
27	8.0	7.5	7.7	7.6	7.9	7.8	7.8	7.8	8.4	8.3	7.9	7.8
28	7.9	7.6	7.7	7.5	7.9	7.9	7.8	7.8	8.5	8.3	7.9	7.9
29	8.1	7.8	7.5	7.3	7.9	7.9	7.8	7.8	---	---	7.9	7.8
30	8.0	7.8	7.3	7.2	8.0	7.9	7.8	7.8	---	---	7.9	7.9
31	8.0	7.8	---	---	8.1	7.9	7.8	7.8	---	---	7.9	7.9
MONTH	8.2	7.5	8.0	7.2	8.1	7.2	8.6	7.8	8.5	7.8	9.0	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	7.9	7.8	7.8	7.7	7.8	7.4	8.1	7.8	7.8	7.5	7.6	7.4
2	7.9	7.8	7.8	7.6	7.7	7.4	8.1	7.8	7.7	7.5	7.5	7.4
3	7.9	7.8	7.7	7.6	7.9	7.5	8.1	7.9	7.7	7.5	7.5	7.3
4	7.8	7.8	7.7	7.6	7.9	7.7	8.0	7.8	7.8	7.5	7.6	7.3
5	7.8	7.8	7.7	7.6	7.8	7.5	7.9	7.8	7.7	7.5	7.8	7.5
6	7.8	7.8	7.8	7.7	7.7	7.4	7.9	7.7	7.8	7.4	7.5	7.4
7	7.8	7.8	7.7	7.7	7.5	7.2	8.0	7.7	7.7	7.4	7.4	7.2
8	7.9	7.8	7.7	7.6	7.4	7.2	7.9	7.8	7.7	7.4	7.3	7.1
9	7.9	7.9	7.8	7.7	7.5	7.4	8.0	7.4	7.6	7.3	7.2	7.0
10	8.0	7.9	7.8	7.7	7.5	7.3	8.0	7.7	7.6	7.3	7.1	7.0
11	8.0	7.9	7.8	7.7	7.4	7.4	7.8	7.6	7.4	7.2	7.1	7.0
12	8.0	7.9	8.0	7.8	7.5	7.4	7.7	7.5	7.6	7.4	7.2	7.0
13	8.0	7.9	7.9	7.7	7.7	7.5	7.6	7.4	7.7	7.4	7.2	7.0
14	8.0	7.9	7.7	7.6	7.6	7.5	7.7	7.4	7.7	7.3	7.3	7.0
15	8.0	7.9	7.7	7.7	7.6	7.6	7.7	7.6	7.7	7.4	7.2	7.0
16	8.1	7.9	7.8	7.7	7.6	7.5	7.7	7.4	7.7	7.4	7.4	7.0
17	8.2	7.9	7.7	7.7	7.6	7.5	7.9	7.7	7.5	7.2	7.7	7.2
18	8.2	8.1	7.7	7.6	7.6	7.5	8.0	7.7	7.4	7.2	7.6	7.4
19	8.2	8.0	7.8	7.7	7.6	7.5	8.0	7.6	7.5	7.3	7.6	7.4
20	8.1	7.9	7.8	7.7	7.7	7.5	7.8	7.6	7.5	7.2	7.7	7.5
21	8.2	7.9	7.8	7.7	7.8	7.7	7.9	7.7	7.8	7.3	7.5	7.5
22	8.3	8.0	7.8	7.7	8.0	7.7	7.8	7.5	8.1	7.5	7.6	7.4
23	8.4	8.2	7.9	7.7	8.0	7.8	7.8	7.6	7.9	7.7	7.8	7.5
24	8.3	7.8	8.0	7.8	7.9	7.8	7.7	7.4	7.8	7.6	7.8	7.7
25	7.8	7.6	8.0	7.9	7.8	7.7	7.8	7.5	7.6	7.5	7.7	7.6
26	7.7	7.5	8.1	7.8	7.7	7.6	7.7	7.5	7.5	7.3	7.7	7.5
27	7.9	7.7	8.1	8.0	7.7	7.6	7.6	7.5	7.4	7.2	7.6	7.5
28	8.0	7.8	8.1	8.0	7.7	7.6	7.6	7.4	7.4	7.3	7.7	7.5
29	8.0	7.8	8.1	7.8	7.8	7.6	7.6	7.4	7.5	7.4	7.6	7.5
30	8.0	7.8	7.8	7.7	7.9	7.7	7.6	7.4	7.5	7.3	7.6	7.5
31	---	---	7.8	7.6	---	---	7.7	7.4	7.5	7.4	---	---
MONTH	8.4	7.5	8.1	7.6	8.0	7.2	8.1	7.4	8.1	7.2	7.8	7.0

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	21.0	20.2	20.4	15.6	15.4	15.5	13.8	13.6	13.7	7.7	7.1	7.4
2	20.8	19.8	20.2	16.1	15.3	15.3	13.6	13.4	13.5	7.4	7.1	7.2
3	20.6	19.9	20.2	15.9	15.6	15.6	13.4	13.1	13.2	7.1	6.4	6.8
4	20.4	20.0	20.2	16.0	15.1	15.7	13.4	13.2	13.3	6.7	6.1	6.4
5	20.4	20.1	20.3	16.0	15.5	15.8	13.4	13.3	13.4	6.4	6.0	6.2
6	20.1	19.6	19.8	16.0	15.4	15.7	13.6	13.4	13.5	6.1	6.0	6.1
7	19.6	19.1	19.4	15.8	15.4	15.6	13.7	13.6	13.7	6.0	5.5	5.8
8	19.4	19.0	19.2	15.9	15.3	15.6	13.9	13.6	13.8	5.9	5.5	5.7
9	19.3	18.8	19.1	16.1	15.3	15.7	13.6	13.5	13.6	6.0	5.6	5.8
10	19.4	18.8	19.0	15.6	14.9	15.3	13.5	13.1	13.3	6.2	6.0	6.1
11	19.0	18.7	18.9	15.3	14.8	15.0	13.1	12.5	12.8	6.2	6.1	6.2
12	18.9	18.6	18.8	15.1	14.6	14.9	12.5	12.3	12.4	6.5	6.1	6.3
13	19.0	18.8	18.9	15.1	14.6	14.8	13.0	12.3	12.6	6.4	6.1	6.3
14	19.2	18.9	19.0	15.1	14.6	14.8	13.4	13.0	13.2	6.9	6.4	6.5
15	19.1	18.9	19.0	14.9	14.7	14.8	13.4	13.0	13.2	6.8	6.3	6.6
16	18.9	18.2	18.5	14.9	14.5	14.6	13.0	12.9	12.9	6.8	6.6	6.7
17	18.2	17.6	17.9	14.9	14.4	14.7	13.1	12.9	13.0	6.8	6.3	6.7
18	17.6	17.3	17.4	14.8	14.4	14.7	13.1	13.0	13.0	6.9	6.5	6.7
19	17.4	17.1	17.2	14.8	14.4	14.7	13.0	12.6	12.8	6.9	6.6	6.8
20	17.4	17.1	17.3	14.6	14.1	14.4	12.6	12.0	12.2	6.8	6.6	6.7
21	17.4	17.0	17.2	14.3	13.8	14.0	12.0	11.6	11.8	7.1	6.8	6.9
22	17.5	17.0	17.3	13.9	13.5	13.7	11.7	11.2	11.4	7.1	6.9	7.0
23	17.9	17.3	17.5	14.0	13.6	13.8	11.3	10.7	11.1	8.0	7.1	7.5
24	18.1	17.7	17.9	14.2	13.9	14.0	10.7	10.2	10.5	9.6	8.0	9.0
25	18.2	17.7	17.9	14.0	13.9	14.0	10.3	9.9	10.1	9.6	8.2	8.8
26	17.8	17.1	17.5	14.0	13.8	13.9	10.0	9.6	9.8	8.9	8.2	8.5
27	17.1	16.6	16.9	14.1	13.9	14.0	9.6	8.9	9.2	9.1	8.9	9.0
28	16.9	16.3	16.6	14.1	13.8	14.0	9.1	8.6	8.8	9.3	8.9	9.1
29	16.6	16.3	16.4	14.1	13.6	13.9	8.9	8.2	8.6	10.0	9.3	9.7
30	16.4	15.8	16.1	14.0	13.8	13.9	8.4	7.7	8.1	10.6	10.0	10.3
31	15.9	15.5	15.8	---	---	---	7.9	7.3	7.6	11.1	10.6	10.8
MONTH	21.0	15.5	18.3	16.1	13.5	14.7	13.9	7.3	11.9	11.1	5.5	7.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.4	11.1	11.2	8.4	8.0	8.2	11.7	11.3	11.5	18.4	18.1	18.3
2	11.3	10.8	11.0	8.4	8.1	8.2	12.1	11.4	11.7	18.4	18.0	18.2
3	10.8	10.3	10.5	8.2	7.7	8.0	12.1	11.9	12.0	18.0	17.5	17.7
4	10.3	9.6	9.9	8.0	7.4	7.6	12.1	11.8	11.9	17.6	17.2	17.4
5	9.6	9.2	9.4	7.9	7.1	7.6	11.9	11.5	11.7	17.8	17.2	17.5
6	9.2	8.6	8.8	8.2	7.8	8.0	12.0	11.5	11.8	18.0	17.5	17.8
7	8.6	8.3	8.4	8.8	8.2	8.4	12.1	11.6	11.9	18.4	17.8	18.1
8	8.3	8.1	8.2	9.1	8.5	8.8	12.4	12.0	12.2	18.8	18.1	18.4
9	8.5	8.0	8.3	9.5	9.2	9.4	12.6	12.3	12.5	18.8	18.4	18.6
10	8.8	8.4	8.6	9.5	9.1	9.3	13.1	12.4	12.7	18.7	18.2	18.4
11	8.9	8.7	8.8	10.1	9.2	9.6	13.3	12.7	13.0	18.5	17.8	18.1
12	9.0	8.6	8.9	9.7	9.6	9.7	13.8	13.2	13.4	18.8	18.3	18.5
13	8.9	8.8	8.8	10.0	9.6	9.7	14.4	13.7	13.9	18.6	18.0	18.4
14	8.8	8.6	8.7	10.5	9.8	10.1	14.7	14.3	14.5	18.0	17.6	17.8
15	8.7	8.6	8.7	11.0	10.5	10.7	15.4	14.6	15.0	17.7	17.2	17.4
16	8.9	8.6	8.7	11.2	11.0	11.1	16.0	15.3	15.7	17.5	17.2	17.4
17	8.9	8.7	8.8	11.9	10.9	11.4	16.6	15.9	16.2	17.6	17.4	17.5
18	9.0	8.7	8.9	12.4	11.9	12.2	17.5	16.6	17.1	17.4	16.9	17.1
19	9.2	8.8	9.0	12.2	12.0	12.1	17.9	17.2	17.5	17.0	16.5	16.7
20	9.5	9.1	9.3	12.4	12.2	12.3	17.8	17.4	17.6	16.5	16.2	16.3
21	9.7	9.3	9.5	12.3	11.8	12.1	18.6	17.6	18.0	16.4	15.9	16.2
22	9.7	9.4	9.6	11.8	11.3	11.5	18.5	17.9	18.3	16.7	16.0	16.3
23	9.5	9.2	9.4	11.3	10.9	11.1	18.5	18.2	18.4	16.9	16.4	16.7
24	9.6	9.2	9.4	11.4	11.0	11.2	18.5	17.2	17.9	17.4	16.8	17.1
25	9.9	9.5	9.6	11.5	11.2	11.3	17.4	16.9	17.1	17.9	17.3	17.6
26	9.8	9.0	9.5	11.4	11.1	11.3	17.4	16.8	17.1	18.2	17.6	17.9
27	9.0	8.6	8.8	11.1	10.8	11.0	17.5	17.4	17.4	18.7	18.0	18.3
28	8.6	8.4	8.6	11.0	10.6	10.8	18.0	17.5	17.7	18.9	18.6	18.7
29	---	---	---	11.6	10.8	11.2	18.0	17.7	17.9	19.4	18.9	19.2
30	---	---	---	11.7	11.4	11.6	18.3	18.0	18.2	20.0	19.4	19.7
31	---	---	---	11.8	11.5	11.6	---	---	---	20.5	19.8	20.1
MONTH	11.4	8.0	9.2	12.4	7.1	10.2	18.6	11.3	15.1	20.5	15.9	17.9

CUMBERLAND RIVER BASIN

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.2	20.4	20.7	27.4	26.7	27.1	28.2	27.8	28.0	27.4	26.8	27.1
2	21.6	20.8	21.1	27.4	27.1	27.2	28.0	27.3	27.6	27.4	27.0	27.2
3	22.3	21.6	21.8	27.4	27.2	27.3	27.8	27.4	27.5	27.6	27.1	27.3
4	22.9	22.1	22.4	27.8	27.3	27.5	28.1	27.4	27.6	27.8	27.3	27.5
5	22.9	22.5	22.7	27.9	27.6	27.7	28.2	27.8	28.0	27.9	27.4	27.7
6	22.8	22.5	22.6	28.0	27.5	27.7	28.6	28.0	28.2	27.6	27.1	27.3
7	23.1	22.7	22.8	28.2	27.7	27.9	28.4	27.7	28.0	27.6	27.0	27.2
8	23.1	22.6	22.8	28.2	27.9	28.0	27.8	27.3	27.6	27.2	26.7	26.9
9	23.6	22.9	23.2	28.1	27.7	28.0	27.6	27.0	27.3	26.7	26.2	26.4
10	23.9	23.3	23.5	28.4	28.0	28.1	27.0	26.4	26.7	26.4	25.8	26.1
11	23.6	23.3	23.4	28.1	27.7	27.9	27.1	26.4	26.7	26.4	26.1	26.3
12	24.4	23.2	23.6	27.7	26.8	27.4	27.5	26.9	27.2	26.6	26.0	26.3
13	25.3	24.3	24.7	26.8	26.6	26.7	27.8	27.3	27.5	26.1	25.8	25.9
14	25.1	24.6	24.9	27.1	26.5	26.8	27.7	27.4	27.5	26.1	25.8	25.9
15	24.9	24.2	24.6	27.3	27.0	27.1	27.6	27.2	27.4	25.9	25.6	25.8
16	24.8	24.6	24.6	27.3	26.8	27.1	27.6	26.9	27.3	26.4	25.6	25.8
17	24.8	24.4	24.5	27.5	27.2	27.3	27.1	26.7	26.9	26.3	25.7	25.9
18	24.7	24.3	24.5	27.8	27.2	27.5	27.1	26.8	26.9	26.3	26.1	26.2
19	25.0	24.3	24.6	27.5	27.0	27.3	27.2	26.7	26.9	26.5	26.1	26.3
20	25.2	24.7	25.0	27.7	27.2	27.5	27.3	26.9	27.1	26.6	26.1	26.3
21	26.1	25.1	25.5	27.8	27.6	27.7	27.8	27.0	27.3	26.1	25.5	25.8
22	26.7	25.8	26.2	27.7	27.4	27.5	28.0	27.5	27.7	25.6	25.3	25.4
23	26.7	26.2	26.4	27.5	27.2	27.3	27.9	27.6	27.7	25.5	25.0	25.2
24	27.0	26.4	26.6	27.6	27.1	27.3	27.9	27.6	27.7	25.2	24.7	25.0
25	27.2	26.6	26.8	27.9	27.4	27.6	27.6	27.4	27.6	24.8	24.4	24.6
26	26.7	26.4	26.5	27.8	27.5	27.7	27.6	27.3	27.5	24.4	22.9	23.7
27	26.6	26.2	26.4	27.8	27.4	27.5	27.3	27.0	27.1	22.9	21.5	21.8
28	26.5	26.0	26.3	28.2	27.6	27.9	27.0	26.7	26.9	22.5	21.6	22.1
29	26.8	26.3	26.5	28.4	27.9	28.1	26.8	26.5	26.6	22.5	22.1	22.3
30	27.0	26.5	26.7	28.3	27.8	28.1	26.6	26.2	26.4	22.6	22.2	22.5
31	---	---	---	28.0	27.6	27.8	27.0	26.4	26.7	---	---	---
MONTH	27.2	20.4	24.4	28.4	26.5	27.5	28.6	26.2	27.3	27.9	21.5	25.7

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.0	8.2	8.7	9.5	9.0	9.2	9.0	8.3	8.6	12.2	11.5	11.9
2	8.9	7.8	8.4	9.9	8.8	9.3	9.3	8.7	9.1	12.3	11.7	11.9
3	9.1	8.0	8.7	9.6	8.7	9.2	9.6	9.1	9.4	12.4	11.5	12.0
4	9.3	8.5	8.8	9.9	9.1	9.4	9.7	9.4	9.6	12.4	11.5	12.0
5	8.9	7.1	8.5	9.5	9.0	9.2	9.8	9.4	9.6	12.5	12.0	12.2
6	9.2	7.1	8.7	9.5	8.8	9.1	9.9	9.6	9.8	12.4	11.9	12.1
7	9.2	8.7	9.1	9.5	8.8	9.2	9.8	9.5	9.7	12.5	11.8	12.2
8	9.6	8.9	9.2	9.5	9.1	9.2	10.0	9.4	9.6	12.7	12.0	12.4
9	10.0	8.9	9.4	10.0	9.0	9.3	9.7	9.1	9.5	12.9	12.3	12.6
10	---	---	---	10.4	9.2	9.6	9.6	9.2	9.5	12.8	12.3	12.5
11	---	---	---	10.1	9.0	9.6	9.5	9.0	9.2	12.9	12.4	12.6
12	---	---	---	9.8	9.2	9.5	9.8	9.0	9.3	12.7	12.4	12.6
13	---	---	---	9.9	9.3	9.6	9.8	9.4	9.5	13.1	12.5	12.8
14	---	---	---	10.1	9.2	9.6	9.5	9.1	9.2	13.7	12.5	13.0
15	---	---	---	10.2	9.4	9.6	9.3	9.0	9.2	13.0	12.3	12.7
16	---	9.8	---	10.0	9.1	9.5	9.5	9.2	9.3	13.8	12.6	13.2
17	10.3	10.0	10.1	10.6	9.4	9.9	9.8	9.4	9.6	13.5	13.0	13.3
18	10.7	10.0	10.3	11.3	9.5	9.9	9.8	9.6	9.8	14.0	13.0	13.5
19	10.7	9.9	10.3	10.3	9.3	9.7	9.8	9.5	9.6	13.6	13.0	13.2
20	11.0	9.8	10.3	10.4	9.7	9.9	10.0	9.5	9.8	13.2	12.5	12.9
21	10.0	9.3	9.6	10.4	9.6	10	10.0	9.7	9.9	12.8	12.3	12.6
22	9.6	8.3	9.1	10.4	9.7	10.0	10.2	9.8	10.0	12.8	12.3	12.6
23	9.5	7.9	8.5	10.8	10.0	10.2	10.6	9.9	10.2	13.0	12.6	12.8
24	9.3	8.0	8.8	10.5	9.9	10.2	11.1	10.3	10.6	12.6	10.5	11.4
25	9.9	8.2	9.1	10.6	10.0	10.2	11.0	10.5	10.6	11.7	10.7	11.4
26	10.7	8.2	9.6	10.5	10.0	10.2	10.9	10.5	10.7	11.7	11.0	11.3
27	10.0	8.4	9.5	10.0	9.7	9.8	11.1	10.6	10.8	11.5	11.0	11.3
28	9.9	8.3	9.1	9.7	9.2	9.5	11.2	10.8	11.0	11.7	10.9	11.2
29	---	8.8	---	9.5	8.9	9.3	11.7	10.8	11.2	11.0	10.4	10.8
30	---	---	---	8.9	8.3	8.6	11.7	11.2	11.5	10.6	10.3	10.4
31	9.4	9.0	9.3	---	---	---	12.0	11.1	11.7	10.4	10.4	10.4
MONTH	11.0	7.1	9.2	11.3	8.3	9.6	12.0	8.3	9.9	14.0	10.3	12.2

03435000 CUMBERLAND RIVER BELOW CHEATHAM DAM, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	10.5	10.2	10.3	12.9	12.3	12.7	11.8	11.3	11.6	9.5	8.7	9.2
2	10.4	10.2	10.3	12.9	12.8	12.8	11.7	11.4	11.6	9.9	8.6	8.9
3	10.7	10.4	10.6	12.9	12.6	12.8	12.0	11.4	11.6	8.7	8.4	8.5
4	10.6	10.4	10.5	13.9	12.7	13.1	12.2	12.0	12.1	8.5	8.2	8.4
5	10.7	10.6	10.6	13.7	12.9	13.4	12.3	11.6	12.1	9.0	8.2	8.6
6	10.8	10.7	10.8	14.3	13.5	13.9	12.1	11.9	12.0	10.0	8.5	8.9
7	10.9	10.8	10.8	14.9	13.9	14.4	12.1	12.0	12.1	9.1	8.5	8.8
8	11.0	10.8	10.9	15.0	14.3	14.7	12.1	12.0	12.1	8.9	8.2	8.5
9	11.1	11.0	11.0	14.7	14.2	14.4	12.1	12.0	12.1	9.3	8.2	8.7
10	11.1	10.9	11.0	14.6	14.0	14.3	12.1	12.0	12.0	9.2	8.4	8.7
11	11.3	11.1	11.2	15.5	14.1	14.5	12.1	12.0	12.0	9.2	8.3	8.7
12	11.2	11.0	11.1	14.9	14.1	14.4	12.1	11.0	11.7	9.6	8.7	9.2
13	11.5	11.2	11.3	14.9	13.9	14.3	11.1	10.8	11.0	9.5	8.5	9.0
14	11.6	11.4	11.5	15.0	14.0	14.4	11.1	10.7	10.9	9.1	7.8	8.2
15	11.6	11.5	11.6	15.0	14.1	14.5	11.2	10.8	11.0	9.9	9.0	9.5
16	11.8	11.6	11.7	14.3	13.4	13.9	11.5	10.9	11.2	10.2	9.1	9.4
17	11.8	11.6	11.7	13.5	11.7	12.6	11.8	10.9	11.4	9.1	8.4	8.7
18	11.9	11.6	11.8	11.8	10.2	10.8	11.7	11.1	11.5	8.5	8.1	8.3
19	12.1	11.8	11.9	11.1	10.8	11.0	11.7	10.4	11.2	8.9	8.0	8.5
20	12.0	11.7	11.9	10.8	10.5	10.6	11.2	10.4	10.8	9.3	8.8	9.1
21	12.1	11.8	12.0	10.9	10.6	10.8	11.3	10.4	10.9	9.2	8.6	8.9
22	12.1	11.8	11.9	11.1	10.9	11.0	11.1	10.5	10.8	8.8	8.4	8.6
23	12.3	11.9	12.1	11.5	11.1	11.4	11.4	10.7	11.0	9.3	8.3	8.8
24	12.5	12.1	12.3	11.9	11.3	11.5	11.0	9.7	10.4	9.5	8.6	9.0
25	12.8	12.2	12.5	12.1	11.9	12.0	9.7	9.3	9.5	9.7	9.0	9.3
26	12.6	12.2	12.4	12.1	11.8	11.9	9.5	8.6	8.8	9.9	8.7	9.2
27	12.5	12.2	12.4	12.3	11.9	12.0	9.4	8.6	9.1	9.9	9.2	9.6
28	12.9	12.3	12.6	12.3	12.2	12.3	9.7	8.9	9.3	9.7	9.0	9.4
29	---	---	---	12.3	11.8	12.2	9.9	9.1	9.6	10.1	9.2	9.7
30	---	---	---	12.3	12.2	12.2	10.8	9.5	9.8	9.7	9.2	9.4
31	---	---	---	12.2	11.8	12.0	---	---	---	9.3	8.6	9.0
MONTH	12.9	10.2	11.5	15.5	10.2	12.8	12.3	8.6	11.0	10.2	7.8	8.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.0	8.0	8.5	8.5	6.1	7.2	9.2	8.2	8.5	8.6	7.4	7.9
2	8.9	7.8	8.4	8.6	6.7	7.5	9.1	7.9	8.5	8.6	7.6	7.9
3	9.4	8.5	9.0	8.0	6.7	7.4	9.0	7.5	8.3	8.6	7.5	8.0
4	9.3	8.8	9.0	8.2	5.8	7.3	9.5	7.6	8.5	9.1	8.0	8.5
5	9.1	8.3	8.8	7.8	6.0	7.2	9.1	8.1	8.5	9.2	7.9	8.4
6	8.7	7.6	8.2	7.2	5.2	6.4	9.4	7.9	8.5	8.8	7.7	8.1
7	7.9	7.1	7.5	8.2	4.6	6.6	8.9	7.6	8.3	8.7	7.3	7.8
8	7.6	6.4	7.2	7.8	5.5	7.2	8.9	6.8	8.2	8.2	7.2	7.6
9	7.6	6.8	7.3	8.1	1.4	6.4	8.6	7.6	8.1	7.4	5.7	6.9
10	7.6	6.8	7.2	8.1	6.0	7.2	8.1	6.7	7.7	7.5	6.2	6.8
11	7.4	6.8	7.1	7.2	5.6	6.6	8.2	6.0	7.2	7.5	6.4	6.9
12	7.8	7.0	7.3	6.2	5.4	5.8	7.7	6.6	7.2	8.4	6.9	7.6
13	8.2	7.2	7.5	6.2	3.0	5.4	7.7	5.4	6.8	8.0	7.0	7.6
14	7.3	6.6	6.9	6.6	4.8	5.7	7.3	5.0	6.5	8.2	6.5	7.5
15	7.1	6.2	6.6	5.6	3.2	4.6	7.2	5.1	6.4	7.5	6.5	7.1
16	6.9	6.5	6.7	6.1	0.2	4.4	7.2	5.3	6.5	7.8	5.7	6.9
17	8.3	6.6	6.8	8.7	5.2	7.2	6.6	2.2	5.2	7.4	6.0	6.5
18	6.9	6.6	6.7	9.3	8.0	8.6	6.6	4.1	5.5	6.8	6.0	6.3
19	7.2	6.6	6.8	9.2	7.2	8.3	6.6	5.3	6.0	6.5	6.1	6.3
20	7.4	6.7	7.0	9.2	7.9	8.4	7.4	6.0	6.6	6.7	6.1	6.3
21	7.3	6.2	6.6	9.0	7.8	8.5	7.5	6.1	6.8	6.5	6.1	6.3
22	8.2	5.8	7.1	8.7	6.4	7.8	7.9	6.8	7.3	7.0	6.1	6.5
23	8.2	7.4	7.6	8.2	6.8	7.6	7.8	7.0	7.4	7.5	6.8	7.1
24	8.3	7.0	7.5	7.9	6.7	7.3	8.0	7.1	7.6	7.6	6.9	7.1
25	7.5	4.1	6.8	8.1	6.4	7.4	7.7	6.9	7.4	7.3	6.8	7.1
26	7.0	6.1	6.5	7.8	6.7	7.4	7.4	6.7	7.2	8.8	8.1	8.4
27	6.7	5.7	6.3	7.4	5.9	6.6	7.2	6.5	6.9	8.9	8.2	8.7
28	6.2	5.0	5.8	7.3	5.3	6.6	7.3	6.6	6.9	8.7	8.1	8.4
29	7.0	4.8	5.9	8.2	5.9	7.0	7.8	7.1	7.3	8.7	7.7	8.1
30	7.2	6.0	6.6	8.4	6.8	7.9	8.0	7.1	7.5	10.6	7.5	8.3
31	---	---	---	8.7	7.5	8.0	7.9	7.3	7.6	---	---	---
MONTH	9.4	4.1	7.2	9.3	0.2	7.0	9.5	2.2	7.3	10.6	5.7	7.4

CUMBERLAND RIVER BASIN

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN

LOCATION.--Lat 36°38'32", long 86°59'18", Robertson County, Hydrologic Unit 05130206, on left bank in pump house of Springfield water plant, 0.2 mi south of Kentucky-Tennessee state line, 0.7 mi below Highway 161 bridge, 4.8 mi northwest of Barren Plains.

DRAINAGE AREA.--549 mi², includes 246 mi² without surface drainage.

PERIOD OF RECORD.--October 1994 to current year. Occasional low-flow measurements, water years 1966-1967 at site 1.8 mi upstream.

GAGE.-- Data collection platform. Datum of gage is 440.00 ft above NGVD of 1929 (levels based on information provided by City of Springfield).

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	0915	10,700	16.57	Mar 31	2315	5,050	11.30
Dec 13	1445	8,260	14.10	Apr 25	1245	4,830	11.12
Jan 24	2100	10,800	16.69	May 1	1745	6,600	12.66
Mar 18	0815	4,620	10.95	May 18	0930	*11,200	*17.14
Mar 20	2115	9,960	15.79	Sep 27	1500	9,450	15.25

Minimum daily discharge, 34 ft³/s, Oct. 2, 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	107	3670	687	1930	354	3570	3520	821	187	147	93
2	34	103	2340	631	1990	347	2410	3040	710	181	144	89
3	35	101	1820	593	1570	343	1910	1980	617	217	127	86
4	34	96	1500	555	1390	330	1550	1610	537	291	130	79
5	34	91	1260	522	1200	315	1340	1510	475	212	122	80
6	42	86	1110	511	1090	303	1200	1280	444	187	111	74
7	43	88	1090	498	1040	298	1080	1190	552	168	108	72
8	53	85	1750	464	968	292	1000	1070	458	170	102	70
9	53	83	2070	438	880	294	955	968	399	177	100	69
10	52	80	1480	424	818	305	873	921	364	263	95	71
11	48	80	1260	421	758	325	796	819	340	224	93	62
12	119	76	1150	424	703	317	836	748	328	212	159	66
13	182	75	5150	400	661	314	1370	1140	333	283	154	58
14	1140	77	3920	380	614	310	1500	2310	322	571	126	71
15	1160	71	2730	360	581	303	2610	1250	307	365	168	74
16	552	68	2140	341	560	308	1610	994	281	262	193	79
17	387	70	2220	330	531	1020	1280	2280	266	218	527	101
18	301	69	2240	328	496	3660	1130	9380	254	200	339	112
19	253	72	1830	326	471	2440	1010	4000	242	188	329	100
20	215	73	1550	342	474	5610	907	2530	231	184	212	119
21	189	71	1320	361	471	5400	827	1990	217	174	162	164
22	167	72	1180	367	451	2780	771	1660	208	169	137	212
23	154	74	1470	2240	416	2140	688	1440	206	254	125	143
24	145	115	1710	6730	393	1770	740	e1230	201	334	117	112
25	150	159	1390	5660	380	1520	3300	e970	201	353	113	100
26	172	207	1220	2940	383	2540	1900	e1120	197	247	143	351
27	164	844	1110	2290	397	2770	1350	e1380	196	211	167	7940
28	139	1680	1020	1910	384	1980	1190	e1020	194	185	114	4880
29	124	3150	927	1660	---	1700	1060	930	196	171	104	1750
30	115	8950	828	1500	---	1640	897	926	192	170	97	1250
31	113	---	743	1450	---	2480	---	905	---	155	98	---
TOTAL	6405	16973	55198	36083	22000	44508	41660	56111	10289	7183	4863	18527
MEAN	206.6	565.8	1781	1164	785.7	1436	1389	1810	343.0	231.7	156.9	617.6
MAX	1160	8950	5150	6730	1990	5610	3570	9380	821	571	527	7940
MIN	34	68	743	326	380	292	688	748	192	155	93	58
CFSM	0.38	1.03	3.24	2.12	1.43	2.62	2.53	3.30	0.62	0.42	0.29	1.12
IN.	0.43	1.15	3.74	2.44	1.49	3.02	2.82	3.80	0.70	0.49	0.33	1.26

e Estimated

03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	154.5	345.8	763.2	1049	1090	1461	897.1	1091	821.8	301.9	221.3	204.2
MAX	422	1073	2335	2718	1829	4219	1594	1810	3219	655	507	618
(WY)	1997	1997	1997	1999	1997	1997	1998	2002	1998	1998	1998	2002
MIN	47.3	48.4	166	121	525	406	333	355	200	110	77.1	42.3
(WY)	2000	2000	2000	2000	2000	2000	2001	2001	1999	2000	1999	1999

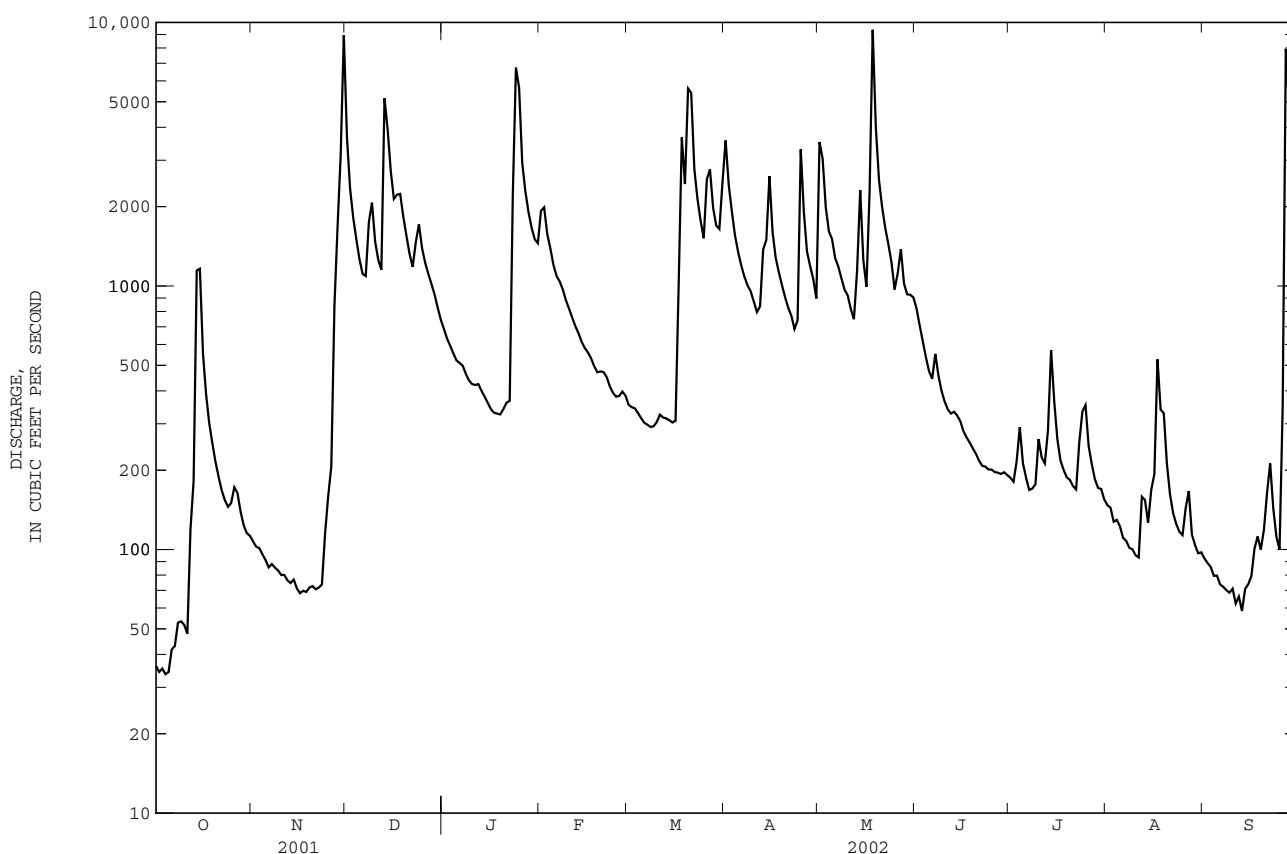
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	182984		319800									
ANNUAL MEAN	501.3		876.2							698.6		
HIGHEST ANNUAL MEAN										1170		1997
LOWEST ANNUAL MEAN										286		2000
HIGHEST DAILY MEAN	8950	Nov 30	9380	May 18						19800	Mar 3	1997
LOWEST DAILY MEAN	34	Oct 2	34	Oct 2						30	Oct 26	1999
ANNUAL SEVEN-DAY MINIMUM	36	Sep 29	37	Oct 1						31	Oct 26	1999
MAXIMUM PEAK FLOW			11200	May 18						22100	Mar 2	1997
MAXIMUM PEAK STAGE			17.15	May 18						28.49	Mar 2	1997
INSTANTANEOUS LOW FLOW			23	Oct 5						23	Oct 5	2001
ANNUAL RUNOFF (CFSM)	0.91		1.60							1.27		
ANNUAL RUNOFF (INCHES)	12.40		21.67							17.29		
10 PERCENT EXCEEDS	1340		2140							1600		
50 PERCENT EXCEEDS	215		365							326		
90 PERCENT EXCEEDS	55		80							70		



CUMBERLAND RIVER BASIN

03435970 MILLERS CREEK AT TURNERSVILLE, TN

LOCATION.--Lat 36°29'16", long 87°02'22", Robertson County, Hydrologic Unit 05130206, on Maxie road, at the confluence of Honey Run Creek and Millers Creek, at Turnersville.

DRAINAGE AREA.--20.5 mi².

PERIOD OF RECORD.--March 2000 to current year.

GAGE.--Data collection platform and crest-stage gage.

REMARKS.--Records good except for discharges above 800 ft³/s, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	2145	1,190	5.87	Mar 20	0715	1,280	6.02
Dec 13	0015	undetermined	*8.89	Sep 27	0215	1,820	6.75

Minimum daily discharge, 0.47 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.52	4.4	144	17	93	12	172	125	12	4.0	2.6	1.9
2	0.49	4.7	92	15	69	13	99	92	11	4.0	2.5	2.0
3	0.49	4.9	81	14	56	13	56	70	10	4.6	2.4	2.0
4	0.47	4.5	46	13	44	11	54	114	9.5	4.1	2.3	2.0
5	0.79	4.5	48	13	34	9.9	40	106	9.0	3.8	2.2	1.9
6	2.0	4.2	49	13	32	9.7	33	88	47	3.6	2.4	2.0
7	1.8	4.2	55	12	29	9.6	29	84	28	3.5	2.3	2.1
8	1.6	4.1	130	11	26	9.4	28	59	16	3.6	2.4	1.7
9	1.6	4.0	126	10	25	10	26	63	12	4.3	2.1	1.9
10	1.6	3.1	126	10	24	9.7	21	74	11	4.0	2.0	2.0
11	1.9	2.5	172	11	20	9.7	19	70	10	3.7	2.5	2.0
12	50	2.3	336	10	20	10	23	63	10	3.6	2.1	2.1
13	19	2.4	825	10	20	11	28	232	11	4.9	2.0	1.9
14	128	2.5	392	9.8	23	10	48	135	11	4.1	3.1	2.5
15	45	2.5	201	9.3	27	11	43	88	11	3.6	2.9	3.5
16	22	2.5	150	8.6	30	11	33	66	10	3.4	3.4	4.2
17	13	2.5	115	8.7	20	265	28	174	11	3.3	3.8	4.6
18	8.9	2.5	136	8.9	18	241	26	190	12	3.6	3.0	5.1
19	7.0	2.8	113	11	16	148	23	115	13	3.8	3.1	4.7
20	5.7	3.0	82	15	16	455	21	79	12	3.3	3.5	6.0
21	4.8	2.8	63	17	13	182	19	60	7.2	3.2	3.0	7.1
22	4.6	2.7	72	25	12	122	18	41	6.3	3.1	2.7	4.2
23	5.0	2.7	138	117	11	104	17	33	6.3	4.1	3.5	3.6
24	5.7	11	82	367	11	97	158	27	6.4	4.8	3.4	3.3
25	7.6	7.4	34	144	10	79	157	22	5.7	3.4	3.2	3.7
26	6.0	4.9	19	94	14	179	102	25	4.9	3.2	3.2	81
27	5.3	56	14	70	13	150	74	19	4.9	3.0	2.9	310
28	4.9	47	15	55	13	157	64	18	5.1	2.8	2.6	59
29	4.6	539	21	44	---	96	53	16	4.5	2.7	2.4	32
30	4.4	309	24	39	---	94	44	14	4.2	2.7	2.1	19
31	4.2	---	20	36	---	241	---	13	---	2.8	1.9	---
TOTAL	368.96	1050.6	3921	1238.3	739	2780.0	1556	2375	332.0	112.6	83.5	579.0
MEAN	11.90	35.02	126.5	39.95	26.39	89.68	51.87	76.61	11.07	3.632	2.694	19.30
MAX	128	539	825	367	93	455	172	232	47	4.9	3.8	310
MIN	0.47	2.3	14	8.6	10	9.4	17	13	4.2	2.7	1.9	1.7
CFSM	0.58	1.71	6.17	1.95	1.29	4.37	2.53	3.74	0.54	0.18	0.13	0.94
IN.	0.67	1.91	7.12	2.25	1.34	5.04	2.82	4.31	0.60	0.20	0.15	1.05

03435970 MILLERS CREEK AT TURNERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

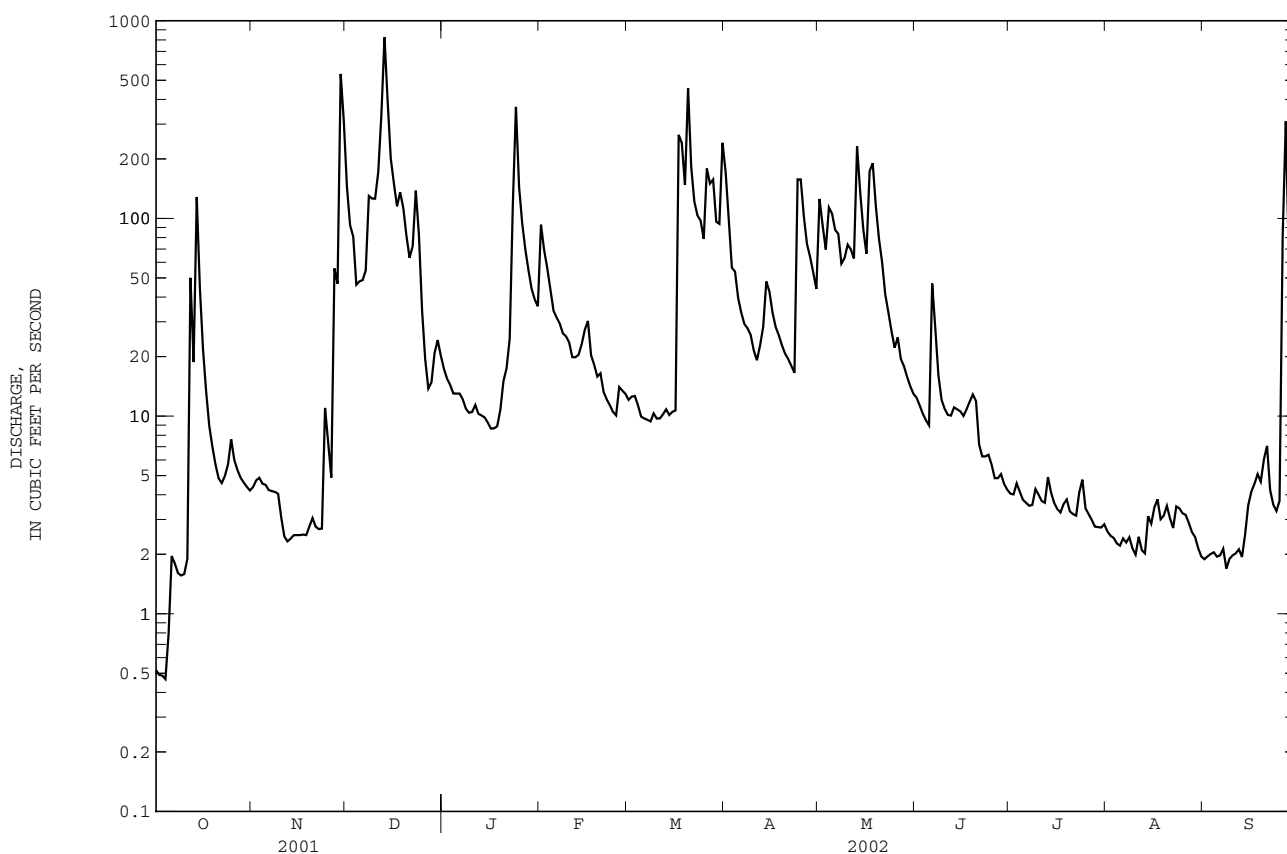
MEAN	7.941	19.86	66.71	24.33	38.81	40.75	33.53	40.89	8.039	3.246	2.275	7.476
MAX	11.9	35.0	126	39.9	51.2	89.7	51.9	76.6	11.1	3.63	2.87	19.3
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2002	2002	2000	2002
MIN	3.98	4.71	6.93	8.71	26.4	10.1	12.3	5.82	5.58	2.75	1.26	0.78
(WY)	2001	2001	2001	2001	2002	2000	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 2000 - 2002

ANNUAL TOTAL	15135.96		
ANNUAL MEAN	41.47	23.33	
HIGHEST ANNUAL MEAN		41.5	2002
LOWEST ANNUAL MEAN		10.3	2001
HIGHEST DAILY MEAN	825	Dec 13	2001
LOWEST DAILY MEAN	0.47	Oct 4	2001
ANNUAL SEVEN-DAY MINIMUM	0.94	Oct 1	2001
MAXIMUM PEAK FLOW	undetermined		
MAXIMUM PEAK STAGE	8.89	Dec 13	2001
ANNUAL RUNOFF (CFSM)	2.02		
ANNUAL RUNOFF (INCHES)	27.47		
10 PERCENT EXCEEDS	119		
50 PERCENT EXCEEDS	11		
90 PERCENT EXCEEDS	2.4		



CUMBERLAND RIVER BASIN

03436100 RED RIVER AT PORT ROYAL, TN

LOCATION.--Lat 36°33'17", long 87°08'31", Montgomery County, Hydrologic Unit 05130206, on left bank at county road bridge at Port Royal, 250 ft downstream from Sulphur Fork, and at mile 25.5.

DRAINAGE AREA.--935 mi² includes 437 mi² without surface drainage.

PERIOD OF RECORD.--July 1961 to September 1991. October 1991 to September 1996, crest-stage partial record station. October 1997 to current year.

GAGE.--Water-stage encoder, crest-stage gage and satellite telemeter at station. Datum of gage is 376.25 ft above NGVD of 1929. July 13, 1961, to Oct. 9, 1963, nonrecording gage and crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 23, 1937, reached a stage of 44.4 ft; from flood profile of U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	1100	*17,400	*28.74	Mar 21	0300	14,200	25.40
Jan 25	0230	14,700	25.90	May 18	1630	15,100	26.38

Minimum discharge, 50 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	266	8780	1090	3170	637	6590	4490	1080	303	188	95
2	71	258	4350	998	3640	612	4460	6000	978	294	178	89
3	71	252	3310	925	2790	613	3530	3640	901	322	168	91
4	68	229	2640	859	2420	588	2830	3180	833	435	151	86
5	69	223	2160	804	2050	559	2400	3010	771	401	142	81
6	76	217	1840	790	1810	537	2100	2520	911	314	136	75
7	109	206	1720	776	1710	519	1880	2250	1100	262	121	73
8	96	205	2350	734	1590	505	1730	2020	884	306	114	71
9	92	196	3620	695	1440	503	1640	1840	743	370	109	68
10	89	188	2570	679	1320	524	1490	1780	685	551	106	64
11	88	184	2120	681	1220	543	1360	1560	644	570	104	62
12	296	178	1910	677	1120	541	1340	1420	611	416	100	54
13	483	173	8160	650	1060	534	2140	2610	643	432	202	56
14	2570	172	7970	622	982	526	2620	4260	636	801	163	52
15	2820	172	5020	594	929	513	3970	2730	583	692	165	85
16	1340	166	3830	565	900	520	2900	2060	538	496	264	96
17	897	161	3720	545	861	1990	2270	3090	503	403	418	129
18	704	157	3810	541	816	7250	1990	13300	480	353	591	158
19	591	160	3230	546	781	5220	1770	8830	453	336	433	133
20	515	165	2690	584	789	8510	1570	4490	426	309	404	167
21	455	159	2250	619	790	11600	1430	3450	404	286	283	304
22	409	157	1970	629	758	5500	1320	2820	384	309	198	314
23	374	157	2700	3000	713	3930	1200	2420	365	339	166	247
24	347	226	3130	9820	678	3220	2230	2110	352	352	142	153
25	359	398	2530	11800	653	2720	5800	1820	349	548	144	119
26	379	403	2150	5530	675	3910	4100	2030	354	399	130	720
27	378	1170	1900	4010	704	5120	2770	2240	336	318	195	8170
28	331	3520	1710	3340	683	3600	2370	1650	340	275	150	7000
29	301	5730	1540	2850	---	3040	2120	1430	327	240	113	3600
30	286	16100	1360	2500	---	2910	1730	1320	323	223	99	2400
31	276	---	1200	2410	---	4180	---	1200	---	214	95	---
TOTAL	15013	31948	98240	60863	37052	81474	75650	97570	17937	11869	5972	24812
MEAN	484.3	1065	3169	1963	1323	2628	2522	3147	597.9	382.9	192.6	827.1
MAX	2820	16100	8780	11800	3640	11600	6590	13300	1100	801	591	8170
MIN	68	157	1200	541	653	503	1200	1200	323	214	95	52
CFSM	0.52	1.14	3.39	2.10	1.42	2.81	2.70	3.37	0.64	0.41	0.21	0.88
IN.	0.60	1.27	3.91	2.42	1.47	3.24	3.01	3.88	0.71	0.47	0.24	0.99

03436100 RED RIVER AT PORT ROYAL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	261.1	646.3	1734	1981	2425	2631	2040	1635	1056	584.3	305.3	380.2
MAX	855	3610	5054	5984	7429	9874	6482	7183	5467	2858	809	3939
(WY)	1980	1980	1991	1974	1989	1975	1979	1983	1998	1989	1998	1979
MIN	68.2	74.4	73.4	91.7	562	724	490	270	140	143	130	83.4
(WY)	1964	1964	1964	1981	1964	2000	1986	1988	1988	1988	1988	1999

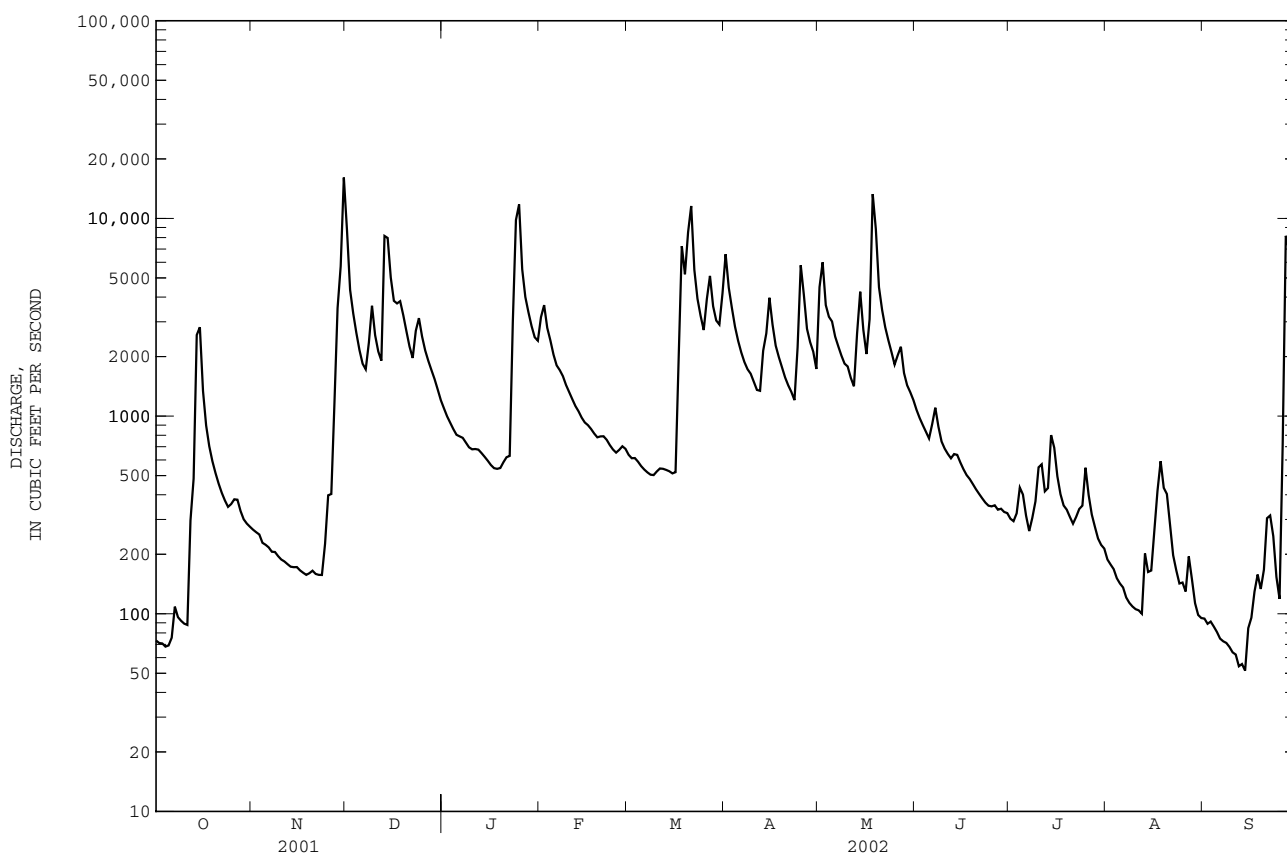
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1961 - 2002

ANNUAL TOTAL	328046			558400								
ANNUAL MEAN	898.8			1530						1311		
HIGHEST ANNUAL MEAN										2594		1979
LOWEST ANNUAL MEAN										514		2000
HIGHEST DAILY MEAN	16100	Nov 30		16100	Nov 30					56600	Mar 13	1975
LOWEST DAILY MEAN	68	Oct 4		52	Sep 14					52	Sep 14	2002
ANNUAL SEVEN-DAY MINIMUM	72	Sep 30		61	Sep 8					58	Sep 12	1964
MAXIMUM PEAK FLOW				17400	Nov 30					60300	Mar 13	1975
MAXIMUM PEAK STAGE				28.74	Nov 30					48.26	Mar 13	1975
INSTANTANEOUS LOW FLOW				50	Sep 14					50	Sep 14	2002
ANNUAL RUNOFF (CFSM)	0.96			1.64						1.40		
ANNUAL RUNOFF (INCHES)	13.05			22.22						19.06		
10 PERCENT EXCEEDS	2370			3670						2970		
50 PERCENT EXCEEDS	419			650						584		
90 PERCENT EXCEEDS	113			120						120		



CUMBERLAND RIVER BASIN

03436690 YELLOW CREEK AT ELLIS MILLS, TN

LOCATION.--Lat 36°18'39", long 87°33'15", Houston County, Hydrologic Unit 05130205, on right bank at downstream end of bridge on county road, 0.3 mi northeast of Ellis Mills, 1.0 mi upstream from Leatherwood Creek, 1.0 mi downstream from Williamson Branch.

DRAINAGE AREA.--103 mi².

PERIOD OF RECORD.--October 1980 to September 1991. October 1991 to September 1997, crest-stage partial record station. October 2000 to current year.

GAGE.--Water-stage encoder, crest-stage gage and satellite telemeter at station. Elevation of gage is 417 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,400 ft³/s May 6, 1984, gage height, 18.47 ft recorded, 18.95 ft, from floodmarks, from rating curve extended above 9,500 ft³/s on basis of regression formula and peak discharge at Station No. 03436700 Yellow Creek near Shiloh, TN; minimum, 7.2 ft³/s Oct. 14, 1986, result of upstream regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	0230	2,830	9.85	Mar 18	0200	5,030	12.34
Nov 29	2330	*7,000	*14.09	Mar 20	1100	2,900	9.94
Dec 13	0230	2,110	8.82	Sep 27	0200	2,460	9.34
Jan 24	1200	4,620	11.91				

Minimum discharge, 17 ft³/s, Oct. 2, 3, 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	54	783	133	459	102	934	424	80	47	36	26
2	18	53	481	122	428	105	676	301	76	45	34	25
3	18	53	357	115	363	105	528	216	72	45	32	24
4	17	48	283	106	310	97	385	198	69	44	31	24
5	21	46	216	102	262	92	292	184	66	42	30	23
6	31	44	185	101	233	89	236	173	69	40	29	22
7	28	43	170	98	220	89	198	161	66	39	28	24
8	25	41	240	93	200	88	187	147	63	41	26	22
9	23	40	329	90	184	93	181	143	61	41	26	22
10	22	39	294	89	178	90	160	137	58	43	25	21
11	27	38	240	89	163	87	149	124	57	45	25	20
12	46	36	296	87	154	94	144	115	56	43	25	19
13	391	35	1410	85	145	98	139	865	57	46	24	19
14	1570	34	749	83	135	99	137	744	55	43	26	19
15	523	34	506	81	129	101	133	510	53	40	34	22
16	324	33	401	78	126	101	127	340	52	38	36	23
17	217	32	366	78	117	956	122	361	51	37	50	23
18	168	31	356	81	107	2250	117	413	49	42	39	22
19	143	33	322	96	103	951	112	277	48	43	35	22
20	124	33	278	130	119	1720	107	206	47	39	32	28
21	108	31	228	138	117	1050	103	176	45	37	31	35
22	97	30	204	134	108	699	101	155	44	40	30	30
23	87	30	466	250	105	560	95	139	44	39	30	25
24	84	51	450	2130	104	447	173	127	44	46	32	24
25	84	80	361	889	103	340	242	118	54	42	31	24
26	74	73	305	536	112	601	185	128	63	39	30	293
27	68	349	261	407	106	593	167	111	50	36	29	1400
28	64	425	218	335	103	499	162	101	71	35	28	461
29	61	3670	190	291	---	409	142	95	55	34	27	217
30	59	2610	164	261	---	377	130	89	50	34	26	152
31	56	---	146	232	---	1030	---	85	---	40	25	---
TOTAL	4596	8149	11255	7540	4993	14012	6564	7363	1725	1265	942	3111
MEAN	148.3	271.6	363.1	243.2	178.3	452.0	218.8	237.5	57.50	40.81	30.39	103.7
MAX	1570	3670	1410	2130	459	2250	934	865	80	47	50	1400
MIN	17	30	146	78	103	87	95	85	44	34	24	19
CFSM	1.44	2.64	3.52	2.36	1.73	4.39	2.12	2.31	0.56	0.40	0.30	1.01
IN.	1.66	2.94	4.06	2.72	1.80	5.06	2.37	2.66	0.62	0.46	0.34	1.12

03436690 YELLOW CREEK AT ELLIS MILLS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2002, BY WATER YEAR (WY)

MEAN	43.86	96.92	223.1	185.9	342.4	253.9	236.6	233.1	125.8	59.20	32.88	37.75
MAX	148	272	499	490	845	477	609	795	437	173	47.8	104
(WY)	2002	2002	1991	1989	1989	1989	1983	1984	1981	1989	1989	2002
MIN	16.2	27.2	34.1	22.9	101	124	78.5	46.8	30.0	26.1	19.2	16.4
(WY)	1988	1988	1981	1981	1984	1981	1986	1986	1988	1988	1987	1987

SUMMARY STATISTICS

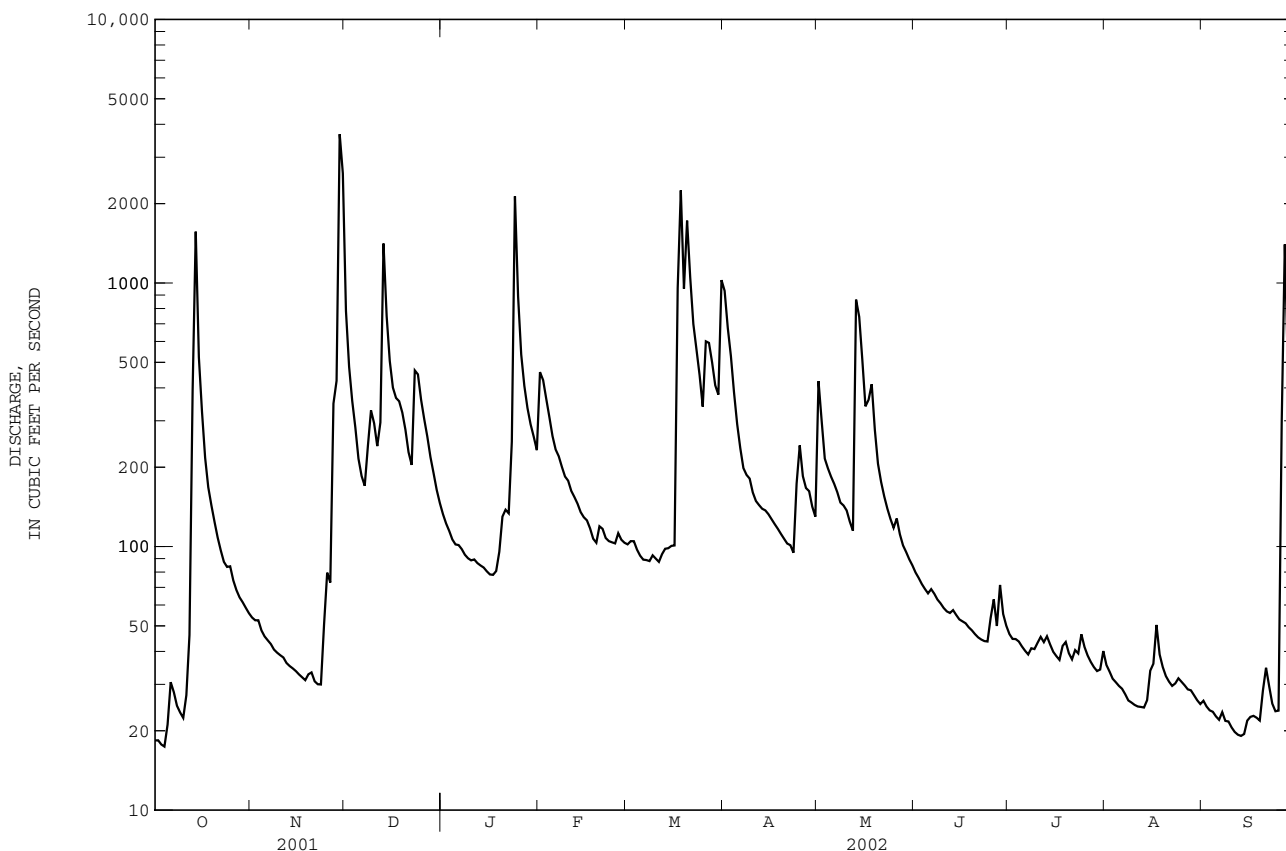
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1981 - 2002

ANNUAL TOTAL	51083		71515			
ANNUAL MEAN	140.0		195.9			154.8
HIGHEST ANNUAL MEAN						270
LOWEST ANNUAL MEAN						82.1
HIGHEST DAILY MEAN	3670	Nov 29	3670	Nov 29	5530	Feb 3 1990
LOWEST DAILY MEAN	17	Oct 4	17	Oct 4	14	Aug 24 1987
ANNUAL SEVEN-DAY MINIMUM	18	Sep 28	20	Sep 8	14	Oct 2 1987
MAXIMUM PEAK FLOW			7000	Nov 29	14400	May 6 1984
MAXIMUM PEAK STAGE			14.09	Nov 29	18.47	May 6 1984
INSTANTANEOUS LOW FLOW			a17	Oct 2	7.2	Oct 14 1986
ANNUAL RUNOFF (CFSM)	1.36		1.90		1.50	
ANNUAL RUNOFF (INCHES)	18.45		25.83		20.43	
10 PERCENT EXCEEDS	289		426		311	
50 PERCENT EXCEEDS	67		93		68	
90 PERCENT EXCEEDS	24		26		23	

a Also occurred Oct. 3, 4, 5.



RESERVOIRS IN CUMBERLAND RIVER BASIN

03413500 LAKE CUMBERLAND.--Lat 36°52'09", long 85°08'45", Russell County, KY, Hydrologic Unit 05130103, in pylon of Wolf Creek Dam on Cumberland River and 10 mi southwest of Jamestown, Ky. DRAINAGE AREA, 5,789 mi². PERIOD OF RECORD, April 1950 to current year. Prior to October 1954, published as Wolf Creek Reservoir. April to June 1950, published in WSP 1726. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Dec. 6, 1950, nonrecording gage at same site at datum 545.0 ft higher.

REVISIONS.--WSP 1556: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam surmounted by 10 taintor gates, each 37 high by 50 ft wide. Final closure of dam made Aug. 7, 1950. Total capacity at elevation 760.00 ft top of gates, is 3,070,000 cfs-days, of which 1,056,000 cfs-days above elevation 723.00 ft, crest of spillway, are reserved for flood control and 1,080,000 cfs-days between elevation 673.00 ft, minimum power pool, and 723.00 ft are used for power production. Figures given herein represent total contents, of which 934,000 cfs-days below elevation 673.00 ft is dead storage. Reservoir is used for flood control, power, navigation, and recreation.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,811,000 cfs-days, May 13, 1984, elevation, 751.70 ft; minimum, first filling, 934,400 cfs-days, Jan. 1, 1956, elevation, 673.01 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,198,800 cfs-days, Apr. 3, elevation, 730.14 ft; minimum, 1,276,300 cfs-days, Dec. 6, elevation, 690.76 ft.

03416500 DALE HOLLOW LAKE.--Lat 36°32'19", long 85°27'05", Clay County, Hydrologic Unit 05130105, at Dale Hollow Dam on Obey River, 3.0 mi east of Celina, and 7.3 mi upstream from mouth. DRAINAGE AREA, 936 mi². PERIOD OF RECORD, August 1943 to current year. Prior to October 1965, published as Dale Hollow Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to June 25, 1946, nonrecording gage at same site and datum.

REVISIONS.--WSP 1306: 1944. WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with six taintor gates, each 12 ft high by 60 ft wide. Closure of dam was made Aug. 30, 1943; water in reservoir first reached minimum pool elevation May 7, 1944. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 663.0 ft, top of gates, is 859,800 cfs-days of which 177,500 cfs-days between elevations 663.00 ft and 651.00 ft, crest of spillway, are reserved for flood control, and 250,200 cfs-days between elevations 651.00 ft and 631.00 ft, ordinary minimum pool, are used for power production. Contents of 432,100 cfs-days below elevation 631.00 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 828,600 cfs-days, Mar. 15, 1975, elevation, 660.98 ft; minimum, first filling, 428,000 cfs-days, Sept. 11, 1944, elevation, 630.63 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 711,700 cfs-days, Apr. 1, elevation, 653.08 ft; minimum, 497,800 cfs-days, Nov. 13, elevation, 636.73 ft.

03418400 CORDELL HULL RESERVOIR.--Lat 36°17'23", long 85°56'39", Smith County, Hydrologic Unit 05130108, at Cordell Hull Dam Cumberland River, 2.7 mi north of Carthage, and at mile 313.5. DRAINAGE AREA, 8,095 mi². PERIOD OF RECORD, October 1972 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with five gates, each 41 ft high and 45 ft wide. Closure of dam was made Oct. 4, 1967; water in reservoir first reached ordinary minimum pool Mar. 13, 1973. Total capacity at elevation 508.0 ft, maximum surcharge pool, is 156,700 cfs-days, of which 53,400 cfs-days is controlled storage between elevations 508.0 ft and 499.0 ft, ordinary minimum pool. Contents of 5,000 cfs-days between elevation of 499.0 ft and 500.0 ft full winter pool, is available for power production. Contents of 48,400 cfs-days above 500.0 ft is available for flood control during the winter, and 26,100 cfs-days above 504.0 ft, full pool during spring to fall season, is available for flood control the rest of the year. Contents of 103,300 cfs-days below elevation 499.0 ft is dead storage. Reservoir is used for navigation, power, and flood control.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 156,700 cfs-days, Mar. 13, 1975, May 8, 1984, elevation, 508.00 ft; minimum, after first filling to ordinary minimum pool, 96,700 cfs-days, Apr. 18, 1974, elevation, 497.65 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 136,800 cfs-days, May 6, elevation, 505.00 ft; minimum, 103,500 cfs-days, Feb. 11, elevation, 499.05 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03413500	LAKE CUMBERLAND		03416500	DALE HOLLOW LAKE		03418400	CORDELL HULL RESERVOIR	
Sept. 30...	699.40	1,458,800	-221,900	639.15	530,500	-47,400	504.02	130,800	-2,300
Oct. 31...	694.81	1,360,400	-98,400	637.99	512,900	-17,600	502.37	121,100	-9,700
Nov. 30...	690.86	1,278,300	-82,100	637.06	501,800	-11,100	500.91	113,100	-8,000
Dec. 31...	697.10	1,409,100	+130,800	639.75	534,400	+32,600	500.38	110,300	-2,800
CAL YR 2001	-	-	+185,800	-	-	+39,700	-	-	+1,700
Jan. 31...	716.35	1,848,900	+439,800	647.10	628,900	+94,500	500.22	109,500	-800
Feb. 28...	712.02	1,745,100	-103,800	645.13	602,800	-26,100	500.42	110,500	+1,000
Mar. 31...	727.34	2,125,300	+380,200	652.65	705,500	+102,700	501.86	118,300	+7,800
Apr. 30...	724.74	2,058,200	-67,100	651.41	688,100	-17,400	504.18	131,700	+13,400
May 31...	722.30	1,996,200	-62,000	650.18	670,900	-17,200	504.25	132,200	+500
June 30...	717.98	1,888,700	-107,500	648.25	644,400	-26,500	504.05	131,000	-1,200
July 31...	711.55	1,734,100	-154,600	644.54	595,100	-49,300	504.33	132,700	+1,700
Aug. 31...	703.21	1,542,800	-191,300	640.62	545,200	-49,900	504.36	132,800	100
Sept. 30...	697.45	1,416,600	-126,200	638.38	517,600	-27,600	503.45	127,400	-5,400
WTR YR 2002	-	-	-42,200	-	-	-12,900	-	-	-3,400

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03422000 GREAT FALLS LAKE.--Lat 35°48'21", long 85°38'09", Warren County, Hydrologic Unit 05130108, at pen-stock inlet on Collins River, 700 ft southwest of powerhouse of Tennessee Valley Authority, 1.5 mi northwest of Rock Island, 1.8 mi upstream from mouth of Collins River, and 2.0 mi upstream from Great Falls Dam on Caney Fork. DRAINAGE AREA, 1,677 mi². PERIOD OF RECORD, January 1917 to current year. GAGE, remote indicator gage. Datum of gage is sea level. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with 18 taintor gates, each 14 ft high by 25 ft wide. Closure of dam was made in 1916; dam redesigned and crest raised 35 ft in 1925. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 805.3 ft top of gates, is 25,900 cfs-days, of which 18,700 cfs-days are controlled storage above elevation 780.0 ft, normal minimum pool. Contents of 1,500 cfs-days below elevation 762.0 ft is dead storage. Reservoir is used primarily for power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum midnight elevation, 817.48 ft, Mar. 23, 1929, contents not determined; minimum midnight contents, 1,700 cfs-days, Aug. 19, 1918, elevation, 756.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,000 cfs-days, Jan. 24, elevation, 807.66 ft; minimum, 9,880 cfs-days, Nov. 21, elevation, 784.91 ft.

03424000 CENTER HILL LAKE.--Lat 36°05'48", long 85°49'38", DeKalb County, Hydrologic Unit 05130108, at Center Hill Dam on Caney Fork, 10 mi north of Smithville, 14 mi southeast of Carthage, and at mile 26.6. DRAINAGE AREA, 2,174 mi². PERIOD OF RECORD, October 1948 to current year. Prior to October 1965, published as Center Hill Reservoir. GAGE, water-stage recorder. Datum of gage is Sandy Hook datum. Prior to Mar. 14, 1949, nonrecording gage at site 1,320 ft upstream at same datum. REVISIONS.--WSP 1910: Drainage area.

REMARKS.--Reservoir is formed by earth embankment and concrete gravity dam. Spillway is equipped with eight taintor gates, each 37 ft high by 50 ft wide. Closure of dam was made Nov. 27, 1948; water in reservoir first reached minimum pool elevation Jan. 11, 1949. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 685.0 ft, top of gates, is 1,054,800 cfs-days, of which 384,500 cfs-days between 685.0 ft and 648.0 ft, crest of spillway, are reserved for flood control, and 248,000 cfs-days between elevations 648.0 ft and 618.0 ft, ordinary minimum pool, are used for power production. Contents of 422,300 cfs-days below 618.0 ft is dead storage. Reservoir is used for flood control, navigation, and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,014,600 cfs-days, May 10, 1984, elevation, 681.52 ft; minimum, after first filling, 171,000 cfs-days, Dec. 1, 2, 1949, elevation, 576.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 807,300 cfs-days, Jan. 15, elevation, 662.19 ft; minimum, 497,600 cfs-days, Nov. 1, elevation, 627.83 ft.

03426300 OLD HICKORY LAKE.--Lat 36°17'50", long 86°39'20", Sumner County, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2. DRAINAGE AREA, 11,673 mi². PERIOD OF RECORD, June 1954 to current year. GAGE, water-stage recorder. Datum of gage is sea level; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum. REVISIONS.--WSP 2110: Drainage area.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft, maximum surcharge pool, 274,600 cfs-days of which 63,000 cfs-days between elevations 450.0 ft and 445.0 ft, normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days between elevations 445.0 ft and 442.0 ft, ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days below elevation 442.0 ft, is dead storage. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 277,200 cfs-days, May 9, 1984, elevation, 450.18 ft; minimum, after first filling to ordinary minimum pool, 179,400 cfs-days, Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 237,800 cfs-days, Jan. 21, elevation, 447.20 ft, minimum, 200,000 cfs-days, Sept. 16, elevation, 443.95 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03422000 GREAT FALLS LAKE				03424000 CENTER HILL LAKE			03426300 OLD HICKORY LAKE		
Sept. 30...	800.36	20,800	+200	632.25	533,300	-44,500	444.50	206,000	-1,600
Oct. 31...	785.73	10,400	-10,400	629.88	514,000	-19,300	444.75	208,800	+2,800
Nov. 30...	789.18	12,400	+2,000	629.64	512,000	-2,000	445.60	218,500	+9,700
Dec. 31...	795.80	17,100	+4,700	634.47	551,700	+39,700	444.80	209,400	-9,100
CAL YEAR 2001	-	-	+1,700	-	-	+36,300	-	-	-600
Jan. 31...	805.25	25,300	+8,200	655.64	742,400	+190,700	444.66	207,800	-1,600
Feb. 28...	785.90	10,500	-14,800	641.92	615,600	-126,800	445.20	213,900	+6,100
Mar. 31...	804.92	24,900	+14,400	654.89	735,200	+119,600	445.15	213,300	-600
Apr. 30...	800.70	21,100	-3,800	648.09	671,100	-64,100	444.13	201,900	-11,400
May 31...	795.33	16,700	-4,400	646.95	660,700	-10,400	444.70	208,200	+6,300
June 30...	794.74	16,200	-500	645.09	643,800	-16,900	445.10	212,800	+4,600
July 31...	799.72	20,200	+4,000	640.44	602,600	-41,200	444.88	210,300	-2,500
Aug. 31...	799.93	20,400	+200	634.92	555,400	-47,200	444.95	211,100	800
Sept. 30...	801.16	21,500	+1,100	632.22	533,000	-22,400	444.36	204,500	-6,600
WTR YR 2002	-	-	+700	-	-	-300	-	-	-1,500

RESERVOIRS IN CUMBERLAND RIVER BASIN--CONTINUED

03430050 J. PERCY PRIEST RESERVOIR.--Lat 36°09'23", long 86°37'07", Davidson County, Hydrologic Unit 05130203, on upstream face of J. Percy Priest Dam on Stones River, 2.6 mi east of Donelson, and 6.8 mi above mouth. DRAINAGE AREA, 892 mi². PERIOD OF RECORD, September 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to Dec. 15, 1967, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with four taintor gates, each 41 ft high by 45 ft wide. Closure of dam was made Sept. 18, 1967; water in reservoir first reached ordinary minimum pool May 15, 1968. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 504.5 ft, maximum controlled pool, is 328,700 cfs-days of which 193,600 cfs-days is controlled storage between elevations 504.5 ft and 480.0 ft, ordinary minimum pool. Contents of 17,200 cfs-days between elevations 480.0 ft and 483.0 ft, full winter pool, is available for power production. Contents of 176,400 cfs-days above 483.0 ft is available for flood control during the winter, and 131,100 cfs-days above 490.0 ft, full pool during spring-to-fall season, is available for flood control the rest of the year. Contents of 135,100 cfs-days below elevation 480.0 ft is dead storage. Reservoir is used for flood control, power, recreation, and wildlife.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 336,600 cfs-days, May 9, 1984, elevation, 505.18 ft; minimum, after first filling to ordinary minimum pool, 109,500 cfs-days, Dec. 5, 1968, elevation, 474.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 245,000 cfs-days, Jan. 23, elevation, 496.10 ft, minimum, 147,300 cfs-days, Mar. 23, elevation, 482.16 ft.

03434900 CHEATHAM LAKE.--Lat 36°18'56", long 87°13'10", Cheatham County, Hydrologic Unit 05130202, at Cheatham Dam on Cumberland River, 9.4 mi west of Ashland City, 16 mi southeast of the courthouse in Clarksville, and at mile 148.7. DRAINAGE AREA, 14,159 mi².

REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with seven semi-submersible taintor gates, each 27 ft high by 60 ft wide. Total capacity at elevation 385.0 ft, normal pool, is 52,200 cfs-days, of which 9,800 cfs-days are controlled storage. Records of contents not published herein.

03438210 LAKE BARKLEY.--Lat 37°01'17", long 88°13'16", Lyon County, KY, Hydrologic Unit 05130205, in powerhouse of Barkley Dam on Cumberland River, 1.4 mi northeast of Grand Rivers, KY, and at mile 30.6. DRAINAGE AREA, 17,598 mi². PERIOD OF RECORD, July 1964 to current year. GAGE, water-stage recorder. Datum of gage is sea level, (levels by U.S. Army Corps of Engineers). Prior to Jan. 1, 1966, nonrecording gage, 1,200 ft upstream from Barkley Dam at same datum.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankments. Spillway is equipped with 12 taintor gates, each 50 ft high by 55 ft wide. Construction cofferdam was closed and limited storage began July 1, 1964; reservoir reached ordinary minimum pool elevation of 354.0 ft Feb. 16, 1966. Total level pool capacity at elevation 375.0 ft, top of gates, is 1,049,600 cfs-days, of which 742,000 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Contents of 130,500 cfs-days between ordinary minimum pool elevation, 354.0 ft, and full pool elevation, 359.0 ft, is available for power during the spring-to-fall season. Minimum pool elevation in advance of floods is 346.0 ft, contents 171,000 cfs-days. Reservoir is used for navigation, flood control, power, and recreation. Barkley-Kentucky Canal opened June 13, 1966, for navigation and power use. Canal is 1.75 mi long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see station 03438190, Kentucky reports.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 370.04 ft, May 13, 1984; minimum after reaching permanent pool elevation, 353.20 ft, Dec. 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 646,400 cfs-days, May 10, elevation, 365.35 ft; minimum content, 294,300 cfs-days, Feb. 7, minimum, 353.40 ft. Contents based on backwater profile.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-day)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03430050	J. PERCY PRIEST LAKE		*03438210	LAKE BARKLEY	
Sept. 30.....	490.27	199,600	+2,100	355.45	342,000	+7,400
Oct. 31.....	487.85	182,700	-16,900	354.60	321,500	-20,500
Nov. 30.....	486.73	175,300	-7,400	360.25	475,400	+153,900
Dec. 31.....	482.85	151,400	-23,900	354.10	309,900	-165,500
CAL YR 2001	-	-	-1,500	-	-	-32,100
Jan. 31.....	486.70	175,100	+23,700	354.35	315,700	+5,800
Feb. 29.....	482.45	149,000	-26,100	354.65	322,700	+7,000
Mar. 31.....	489.75	195,800	+46,800	355.85	352,100	+29,400
Apr. 30.....	490.63	202,200	+6,400	359.25	445,400	+93,300
May 31.....	490.25	199,500	-2,700	361.45	513,000	+67,600
June 30.....	490.15	198,700	-800	359.15	442,500	-70,500
July 31.....	490.78	203,300	+4,600	357.75	402,600	-39,900
Aug. 31.....	490.54	201,600	-1,700	356.25	362,300	-40,300
Sept. 30.....	491.21	206,500	+4,900	357.15	386,100	+23,800
WTR YR 2002	-	-	+6,900	-	-	+44,100

* Contents based on backwater profile.

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TENNESSEE RIVER BASIN

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN

LOCATION.--Lat 35°58'54", long 83°09'40", Cocke County, Hydrologic Unit 06010105, on left bank, 200 ft upstream from bridge on U.S. Highway 321, 1.0 mi northeast of Newport city limits, 3.7 mi upstream from Pigeon River, and at mile 77.5.

DRAINAGE AREA.--1,858 mi².

PERIOD OF RECORD.--September to December 1900, February to August 1901, October to November 1901, November 1902 to December 1905, September to December 1907, October 1920 to September 1994, October 1996 to September 1997. Monthly discharge only October to November 1920, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1933-34, WSP 823: Drainage area. WSP 893: 1928(M), WSP 1306: 1900-1908. WSP 1336: 1903(M), 1921-22(M), 1923, 1925(M), 1927(M), 1928, 1932. WSP 1706: 1901(M).

GAGE.--Water-stage recorder. Datum of gage is 1,011.61 ft above NGVD of 1929. See WSP 1910 for history of changes prior to Mar. 31, 1934.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation during low flow caused by powerplants above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--From reports of Tennessee Valley Authority, the flood of Mar. 7, 1867, gage height, 24 ft, present datum, discharge estimated, 110,000 ft³/s, has not been exceeded since that date. From the same reports, other outstanding floods occurred Feb. 28, 1902, gage height, 23.0 ft present datum, discharge estimated, 101,000 ft³/s; and July 17, 1916, gage height, 22.5 ft present datum, discharge estimated 97,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 16,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2145	18,100	8.73	Mar 17	2115	*33,900	*12.86

Minimum discharge, 359 ft³/s, Aug. 11, 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	823	1050	1010	2540	1530	5690	2030	1030	1040	630	612
2	1020	836	1080	944	2380	1470	4850	3040	1140	946	606	600
3	986	843	1070	1020	2240	1720	4110	3460	1230	1080	645	546
4	938	794	957	975	2130	3210	3480	3550	1050	1300	563	551
5	912	771	911	890	2020	2490	2940	4460	1180	1050	544	525
6	913	747	856	982	1950	2090	2620	3820	1970	974	490	487
7	898	734	848	1260	2020	1890	2450	2770	2820	845	423	469
8	872	750	866	1610	2870	1790	2310	2260	1930	783	406	458
9	914	743	901	1330	3170	1720	2280	1950	1370	737	384	386
10	858	766	921	1230	2710	1710	2400	1850	1260	668	369	384
11	831	740	1280	1310	2550	1690	2910	1770	1070	951	372	391
12	837	717	1860	1360	2400	1750	2580	1760	1010	1160	366	384
13	864	707	1700	1260	2300	1820	2360	1710	934	937	366	386
14	930	704	1610	1180	2150	2610	2400	2220	1050	1290	376	384
15	1310	742	1480	1130	2060	2910	2480	2010	1070	1270	512	383
16	2270	728	1390	1090	2050	2460	2400	1710	949	1300	531	757
17	1570	718	1310	1040	1940	11700	2250	1480	881	1200	473	1260
18	1200	706	1910	1040	1880	18200	2050	1490	834	994	709	1010
19	1070	661	2460	1490	1820	8500	2190	1730	791	893	826	710
20	1010	655	2080	5550	1780	5250	2080	1550	762	877	678	580
21	963	693	1690	4150	1780	4370	2070	1370	772	772	764	546
22	946	672	1480	3300	1800	4060	2000	1310	780	738	627	789
23	919	665	1360	7070	1770	3700	1980	1240	746	674	558	1860
24	896	683	1310	11400	1700	3190	1780	1220	702	952	486	1690
25	888	1010	1340	10400	1640	2940	2090	1160	704	902	474	1210
26	894	1700	1430	7110	1560	2790	2440	1130	782	958	515	1260
27	814	1550	1270	5010	1590	3090	2140	1090	893	1110	989	2870
28	844	1280	1220	4070	1570	3060	1960	1230	2300	867	1500	5650
29	806	1090	1180	3510	---	2780	1800	1690	1790	972	1140	4790
30	810	1040	1120	3000	---	3230	1710	1270	1230	917	863	3670
31	797	---	1060	2720	---	5460	---	1110	---	742	711	---
TOTAL	30860	25268	41000	89441	58370	115180	76800	60440	35030	29899	18896	35598
MEAN	995.5	842.3	1323	2885	2085	3715	2560	1950	1168	964.5	609.5	1187
MAX	2270	1700	2460	11400	3170	18200	5690	4460	2820	1300	1500	5650
MIN	797	655	848	890	1560	1470	1710	1090	702	668	366	383
CFSM	0.54	0.45	0.71	1.55	1.12	2.00	1.38	1.05	0.63	0.52	0.33	0.64
IN.	0.62	0.51	0.82	1.79	1.17	2.31	1.54	1.21	0.70	0.60	0.38	0.71

03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN--Continued

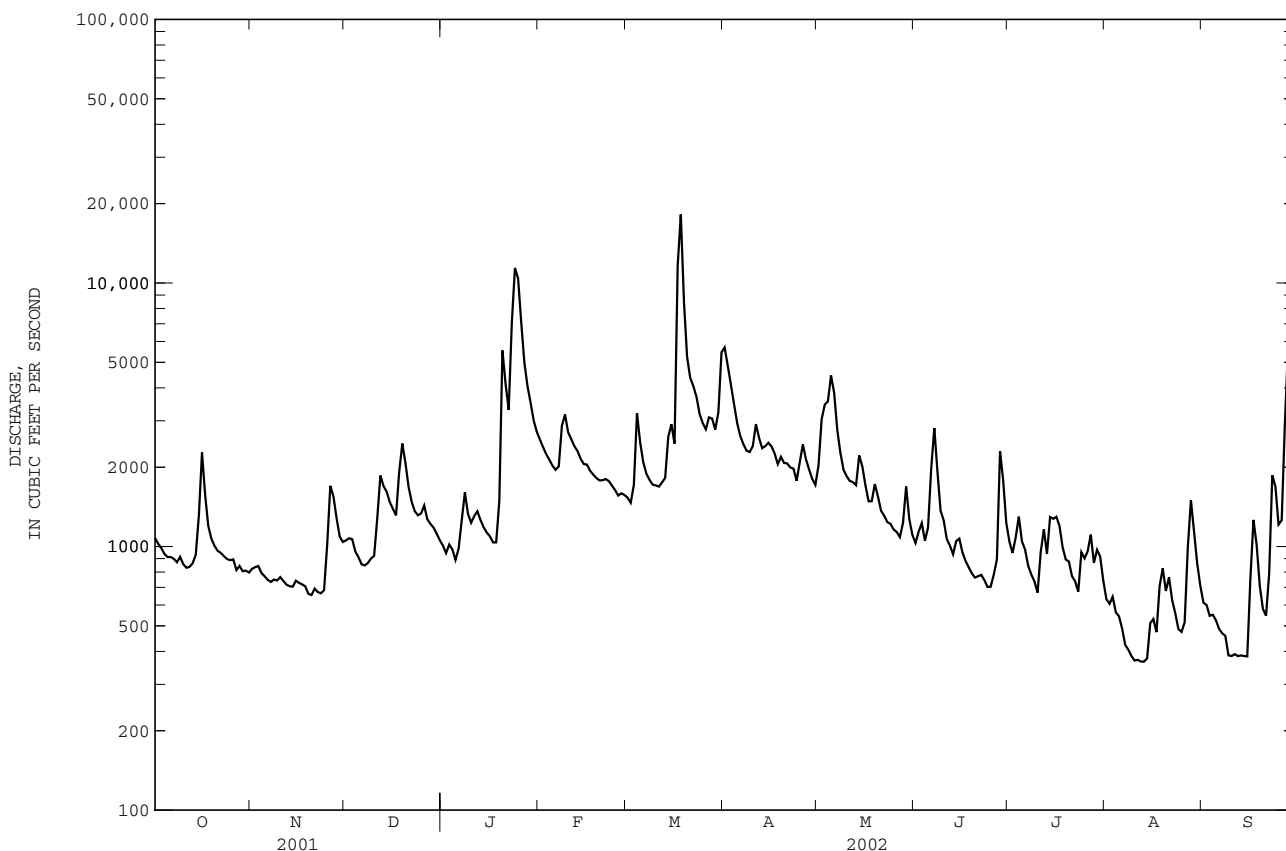
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2002, BY WATER YEAR (WY)

MEAN	1858	2111	2818	3537	4195	4817	4311	3328	2577	2209	2266	1730
MAX	9875	7249	7478	9533	8814	12710	11650	9448	6148	7620	14640	6358
(WY)	1965	1980	1962	1937	1990	1903	1903	1901	1901	1905	1901	1928
MIN	508	713	819	968	1450	1399	1362	1252	722	711	380	421
(WY)	1955	1932	1940	1956	1941	1988	1986	1941	1988	1986	1925	1925

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1901 - 2002

ANNUAL TOTAL	636976		616782									
ANNUAL MEAN	1745		1690									
HIGHEST ANNUAL MEAN										2969		
LOWEST ANNUAL MEAN										7671		1901
HIGHEST DAILY MEAN	10700	Jul 30	18200	Mar 18	62200	Apr 8	1903					
LOWEST DAILY MEAN	655	Nov 20	366	Aug 12	240	Sep 9	1925					
ANNUAL SEVEN-DAY MINIMUM	676	Nov 18	377	Aug 8	276	Aug 25	1925					
MAXIMUM PEAK FLOW			33900	Mar 17	76300	Aug 30	1940					
MAXIMUM PEAK STAGE			12.88	Mar 17	19.25	Aug 30	1940					
INSTANTANEOUS LOW FLOW			a359	Aug 11	208	Oct 23	1952					
ANNUAL RUNOFF (CFSM)	0.94		0.91		1.60							
ANNUAL RUNOFF (INCHES)	12.75		12.35		21.71							
10 PERCENT EXCEEDS	2930		3020		5420							
50 PERCENT EXCEEDS	1340		1210		2250							
90 PERCENT EXCEEDS	853		621		956							

a Also occurred Aug. 13.



TENNESSEE RIVER BASIN

03461500 PIGEON RIVER AT NEWPORT, TN

LOCATION.--Lat 35°57'38", long 83°10'28", Cocke County, Hydrologic Unit 06010106, on left bank 100 ft upstream from bridge on U.S. Highway 25 and 70 at Newport, 0.6 mi downstream from Morell Branch, and at mile 6.8

DRAINAGE AREA.--666 mi².

WATER-DISCHARGE RECORD

PERIOD OF RECORD.-- September 1900 to September 1929, October 1944 to September 1946, August 1948 to February 1982, October 1996 to current year. Monthly discharge only for some periods, published in WSP 1306. Published as "near Newport" 1945-46.

REVISED RECORDS.--WSP 1143: Drainage area. WSP 1306: 1901, 1904-10. WSP 1336: 1903, 1917(M), 1919-20(M), 1921, 1924(M), 1927-29(M), 1948-52 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 1,038.76 ft NGVD of 1929. Prior to Oct. 1, 1929, nonrecording gage at present site at datum 2.00 ft higher. May 8, 1945, to July 22, 1946, water-stage recorder at site 4.8 mi downstream at datum 35.85 ft lower. August 13, 1948, to Sept. 30, 1970, at present site at datum 2.00 ft higher.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. Considerable regulation by Lakes Junaluska, Logan, and Walters for periods of low flow, combined usable capacity of reservoirs about 12,500 cfs-days. The largest of these, Lake Walters, usable capacity, 10,400 cfs-days was completed in 1929.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Mar. 7, 1867, and June 17, 1876, reached a stage of 23 ft present datum, under present conditions about 21.1 ft, due to removal of mill dam in 1945, discharge, 48,000 ft³/s, and flood of August 30, 1940, reached a stage of 19.3 ft present datum, discharge 36,000 ft³/s, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1830	8,510	8.18	Mar 18	1030	10,300	8.91
Mar 17	1745	*15,900	*11.06				

Minimum discharge, 143 ft³/s, June 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	233	466	363	1370	770	2640	1420	553	217	547	284
2	260	238	483	739	1540	796	2350	2090	338	576	280	354
3	225	206	443	629	1040	303	1760	1700	502	626	456	437
4	261	202	588	355	945	381	1820	2120	706	628	271	270
5	282	231	250	516	1440	808	1030	2770	1210	358	192	323
6	600	524	293	448	1080	815	1110	1970	908	584	437	263
7	268	404	294	550	1210	360	1250	1600	371	278	537	187
8	386	178	369	836	1240	449	1560	1280	736	198	538	179
9	572	179	427	398	510	219	1500	1240	546	445	258	180
10	273	205	532	189	412	254	1470	1060	437	677	330	288
11	200	178	880	378	646	651	1420	905	507	773	239	255
12	196	499	648	642	1230	658	1520	749	771	391	173	284
13	336	489	806	330	799	441	743	1540	701	595	316	388
14	228	412	732	432	992	276	822	1150	534	396	241	264
15	1000	385	563	425	877	1320	740	964	581	265	200	187
16	554	388	747	481	315	1250	914	1260	309	543	193	191
17	344	349	828	387	285	7040	996	690	232	558	376	191
18	878	191	1430	273	720	7640	907	645	437	540	259	188
19	348	312	1050	1860	648	4010	842	514	507	397	189	176
20	234	362	554	3880	919	1570	1010	997	489	503	417	168
21	243	200	803	2060	847	1860	1020	812	268	302	286	193
22	332	241	606	1030	1000	1830	890	773	446	225	211	288
23	399	187	297	4810	620	1410	769	718	299	538	199	359
24	387	203	706	5470	404	894	1270	713	270	651	322	277
25	472	245	760	5590	747	1330	928	864	460	632	258	669
26	481	499	788	3760	632	1240	653	542	540	437	204	858
27	225	378	990	3070	626	1410	390	675	573	717	608	2530
28	251	328	643	2440	839	1200	434	945	324	296	660	3090
29	431	381	337	1290	---	1010	1020	814	475	204	571	1300
30	388	417	326	1110	---	1640	604	789	295	437	299	1110
31	329	---	299	902	---	2430	---	437	---	534	473	---
TOTAL	11620	9244	18938	45643	23933	46265	34382	34746	15325	14521	10540	15731
MEAN	374.8	308.1	610.9	1472	854.8	1492	1146	1121	510.8	468.4	340.0	524.4
MAX	1000	524	1430	5590	1540	7640	2640	2770	1210	773	660	3090
MIN	196	178	250	189	285	219	390	437	232	198	173	168
CFSM	0.56	0.46	0.92	2.21	1.28	2.24	1.72	1.68	0.77	0.70	0.51	0.79
IN.	0.65	0.52	1.06	2.55	1.34	2.58	1.92	1.94	0.86	0.81	0.59	0.88

03461500 PIGEON RIVER AT NEWPORT, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2002, BY WATER YEAR (WY)

MEAN	624.3	756.0	1227	1594	1814	2174	1803	1314	1062	894.8	765.8	605.0
MAX	2263	2265	3271	3407	4762	5136	4270	2693	2436	2498	2229	2182
(WY)	1965	1980	1962	1974	1957	1963	1903	1929	1967	1916	1928	1928
MIN	148	234	391	369	853	907	716	651	457	328	158	145
(WY)	1979	1954	1904	1981	1904	1915	1967	1914	1925	1925	1925	1953

SUMMARY STATISTICS

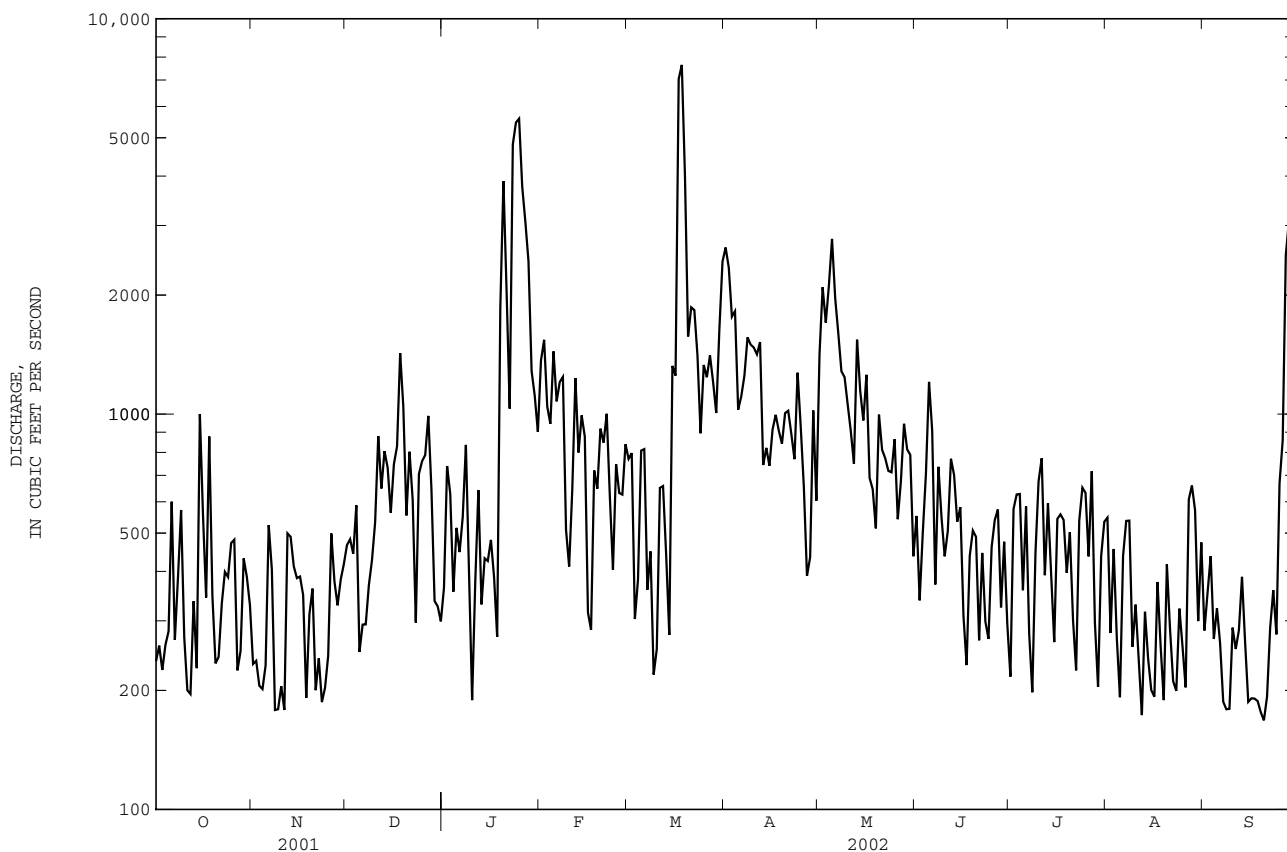
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1901 - 2002

ANNUAL TOTAL	305961	280888		
ANNUAL MEAN	838.2	769.6		
HIGHEST ANNUAL MEAN			1221	
LOWEST ANNUAL MEAN			1787	1903
HIGHEST DAILY MEAN	4870	Jan 20	7640	Mar 18
LOWEST DAILY MEAN	178	Nov 8	168	Sep 20
ANNUAL SEVEN-DAY MINIMUM	242	Nov 18	185	Sep 15
MAXIMUM PEAK FLOW			15900	Mar 17
MAXIMUM PEAK STAGE			11.06	Mar 17
INSTANTANEOUS LOW FLOW			143	Jun 24
ANNUAL RUNOFF (CFSM)	1.26		1.16	
ANNUAL RUNOFF (INCHES)	17.09		15.69	
10 PERCENT EXCEEDS	1610		1430	
50 PERCENT EXCEEDS	648		534	
90 PERCENT EXCEEDS	266		225	

a Present datum, under present conditions the stage for this flood would be about 1.9 ft lower, due to removal of dam 1.3 mi downstream in 1945, from reports of Tennessee Valley Authority.



TENNESSEE RIVER BASIN

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN

LOCATION.--Lat 36°10'35", long 82°27'27", Washington County, Hydrologic Unit 06010108, on left bank, at Embreeville, 1,000 ft upstream from bridge on State Highway 81, 3 mi northwest of Erwin, 5.2 mi downstream from North Indian Creek, and at mile 89.0.

DRAINAGE AREA.--805 mi².

PERIOD OF RECORD.--September 1900 to May 1901 (published as "near Chucky Valley"), October 1919 to current year. Monthly discharge only October 1919 to June 1920, published in WSP 1306.

REVISED RECORDS.--WSP 803: 1935(M). WSP 823: Drainage area. WSP 1336: 1921-24, 1931(M).

GAGE.--Data collection platform. Datum of gage is 1,519.30 ft above NGVD of 1929. Sept. 1, 1900 to May 21, 1901, nonrecording gage at site 3 mi downstream at different datum, destroyed by flood of May 21, 1901. July 1, 1920 to Sept. 30, 1931, nonrecording gage at bridge 2,000 ft downstream at datum 6.33 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 21, 1901, reached a stage of 24 ft, discharge, 120,000 ft³/s, present site and datum, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,500 and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2200	14,800	6.29	Mar 17	2345	*15,000	*6.34
Jan 25	0815	9,510	5.03				

Minimum discharge, 109 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	322	433	401	1280	555	3800	906	521	466	243	233
2	360	323	458	379	1150	597	2960	1040	491	402	230	221
3	351	325	393	450	1050	861	2310	1210	475	712	235	230
4	335	321	372	424	994	915	1910	1340	464	1020	263	221
5	330	312	358	349	893	671	1640	1520	596	685	238	207
6	332	304	350	447	865	651	1470	1300	1160	580	205	201
7	328	298	352	588	1140	649	1330	1120	1180	448	187	171
8	319	295	365	499	1600	628	1230	1020	917	389	175	154
9	308	295	390	386	1350	621	1200	932	669	404	164	144
10	304	292	411	534	1220	626	1480	863	585	368	158	135
11	305	290	1110	719	1180	610	1360	809	526	348	153	124
12	314	290	1170	772	1090	596	1180	754	481	374	153	116
13	339	287	845	654	1010	766	1140	794	457	362	152	111
14	389	284	971	571	943	1120	1190	1190	568	434	149	110
15	1090	283	828	528	890	916	1140	970	602	528	145	143
16	672	283	690	503	860	869	1060	789	495	457	245	276
17	475	284	634	476	822	5720	997	722	441	374	299	389
18	413	285	1370	477	775	11900	1130	785	409	361	272	293
19	394	285	1460	1030	738	5890	1110	950	388	e360	233	231
20	383	293	1030	4610	733	3550	1020	781	375	e340	251	210
21	378	289	843	2510	756	2870	957	711	395	e320	253	225
22	372	280	731	1790	727	2320	927	683	358	e300	219	294
23	364	280	672	6170	680	1900	872	658	337	e400	181	794
24	357	299	718	9290	652	1660	812	627	332	487	179	665
25	358	489	751	8330	632	1480	1020	596	342	532	202	390
26	351	907	634	4860	633	1370	1100	565	345	539	279	757
27	331	539	581	3110	628	1550	940	564	486	415	418	3810
28	321	426	532	2320	591	1370	897	806	729	368	479	3090
29	322	391	565	1880	---	1220	888	711	783	315	353	1250
30	323	377	506	1610	---	1470	824	576	584	283	284	801
31	323	---	439	1420	---	3240	---	546	---	258	240	---
TOTAL	11911	10228	20962	58087	25882	59161	39894	26838	16491	13629	7237	15996
MEAN	384.2	340.9	676.2	1874	924.4	1908	1330	865.7	549.7	439.6	233.5	533.2
MAX	1090	907	1460	9290	1600	11900	3800	1520	1180	1020	479	3810
MIN	304	280	350	349	591	555	812	546	332	258	145	110
MED	351	295	634	654	877	1120	1140	794	489	400	233	227
CFSM	0.48	0.42	0.84	2.33	1.15	2.37	1.65	1.08	0.68	0.55	0.29	0.66
IN.	0.55	0.47	0.97	2.68	1.20	2.73	1.84	1.24	0.76	0.63	0.33	0.74

e Estimated

03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2002, BY WATER YEAR (WY)

MEAN	801.4	996.8	1268	1706	2035	2339	2008	1560	1116	933.9	912.9	754.3
MAX	2630	4720	3073	4020	4494	5102	4169	3171	3196	2525	4876	2648
(WY)	1930	1978	1962	1995	1957	1963	1983	1984	1992	1949	1940	1928
MIN	246	294	353	382	635	649	699	586	376	351	182	187
(WY)	1954	1940	1940	1940	1941	1988	1986	2001	1988	1988	1925	1925

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

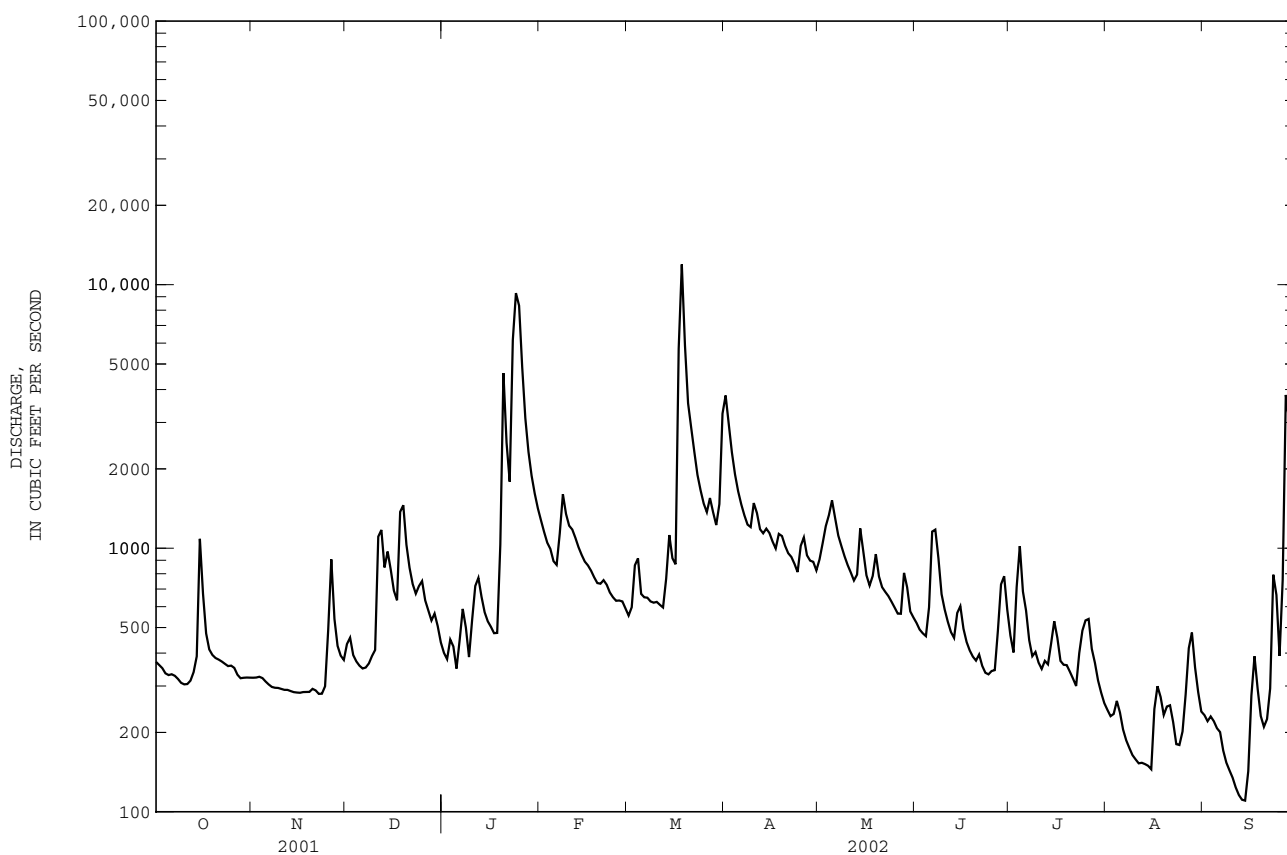
WATER YEARS 1920 - 2002

ANNUAL TOTAL	340194		306316									
ANNUAL MEAN	932.0		839.2									
HIGHEST ANNUAL MEAN										1364		
LOWEST ANNUAL MEAN										1948		1974
HIGHEST DAILY MEAN										694		1988
LOWEST DAILY MEAN	9750	Aug 13	11900	Mar 18	50800	Nov 6	1977					
ANNUAL SEVEN-DAY MINIMUM	280	Nov 22	110	Sep 14	88	Sep 8	1925					
MAXIMUM PEAK FLOW	284	Nov 13	126	Sep 9	121	Sep 3	1925					
MAXIMUM PEAK STAGE			15000	Mar 17	a110000	Nov 6	1977					
INSTANTANEOUS LOW FLOW			6.34	Mar 17	21.52	Nov 6	1977					
ANNUAL RUNOFF (CFSM)	1.16		b109	Sep 13	c85	Sep 8	1925					
ANNUAL RUNOFF (INCHES)	15.72		1.04		1.70							
10 PERCENT EXCEEDS	1720		1390		2550							
50 PERCENT EXCEEDS	636		539		992							
90 PERCENT EXCEEDS	329		239		393							

a From rating curve extended above 48,000 ft³/s on basis of contracted opening and slope-area measurements of peak flow.

b Also occurred on Sept. 14.

c Also occurred on Sept. 9, 1925.



TENNESSEE RIVER BASIN

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN

LOCATION.--Lat 36°12'21", long 82°39'02", Greene County, Hydrologic Unit 06010108, on right bank, 0.6 mi above confluence with Nolichucky River, 1.8 mi southwest of Limestone, and at mile 0.6.

DRAINAGE AREA.--79.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1996 to February 2000, August 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,340 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR PERIOD.--Maximum discharge, 10,400 ft³/s, Aug. 4, 2001, gage height, 12.33 ft minimum, 8.6 ft³/s, Sept. 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,540 ft³/s, Mar. 18, gage height, 5.20 ft; minimum discharge, 8.6 ft³/s, Sept. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	36	28	29	114	52	135	70	36	26	13	14
2	52	36	27	37	107	53	115	67	35	22	13	14
3	52	35	27	26	103	54	108	76	38	23	13	13
4	49	35	27	25	99	51	102	64	37	28	12	13
5	46	34	27	25	93	49	98	57	39	22	12	13
6	49	34	27	26	92	49	94	50	40	21	12	12
7	49	34	29	27	103	48	92	48	42	20	11	12
8	46	33	31	25	110	47	90	65	36	19	11	12
9	46	33	34	25	98	47	91	52	38	19	11	12
10	45	32	36	25	93	46	91	51	37	19	11	11
11	43	32	65	27	88	45	83	51	27	19	10	11
12	43	32	40	25	83	46	82	46	33	18	10	10
13	43	31	74	24	81	48	82	53	30	20	9.9	9.7
14	40	31	69	24	80	47	81	58	36	23	10	9.9
15	42	31	44	24	77	45	79	48	32	22	12	10
16	41	31	38	23	75	48	78	45	31	20	14	11
17	40	31	40	23	73	329	75	43	26	18	14	11
18	41	32	68	24	71	1080	75	47	25	18	13	9.8
19	40	31	50	79	70	294	74	43	24	19	13	9.6
20	40	31	42	144	70	203	72	41	23	26	19	10
21	39	30	37	88	69	183	73	40	23	19	13	12
22	39	29	36	72	66	164	74	39	22	16	12	17
23	38	30	35	338	65	155	73	38	22	16	12	20
24	37	32	37	295	59	149	72	37	22	16	14	15
25	38	32	33	310	58	142	84	36	22	18	14	13
26	37	30	32	184	57	142	72	34	22	19	28	28
27	35	29	31	160	54	136	66	33	29	15	48	28
28	36	29	30	148	53	129	70	34	53	14	18	20
29	36	28	29	136	---	123	69	33	35	14	16	17
30	36	33	28	127	---	122	58	33	26	13	15	16
31	36	---	27	119	---	137	---	32	---	13	14	---
TOTAL	1306	957	1178	2664	2261	4263	2508	1464	941	595	447.9	414.0
MEAN	42.13	31.90	38.00	85.94	80.75	137.5	83.60	47.23	31.37	19.19	14.45	13.80
MAX	52	36	74	338	114	1080	135	76	53	28	48	28
MIN	35	28	27	23	53	45	58	32	22	13	9.9	9.6
CFSM	0.53	0.40	0.48	1.09	1.02	1.74	1.06	0.60	0.40	0.24	0.18	0.17
IN.	0.61	0.45	0.55	1.25	1.06	2.01	1.18	0.69	0.44	0.28	0.21	0.19

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

MEAN	27.37	31.31	45.29	78.23	100.2	133.6	108.0	85.30	61.21	57.80	69.95	35.17
MAX	42.1	67.5	127	172	175	264	165	137	104	93.0	242	82.2
(WY)	2002	1997	1997	1997	1997	1997	1998	1998	1998	1998	2001	2001
MIN	16.0	19.0	17.1	26.7	41.6	93.2	73.9	39.7	31.4	19.2	14.4	13.8
(WY)	2000	2000	2000	2000	2000	2001	1999	2001	2002	2002	2002	2002

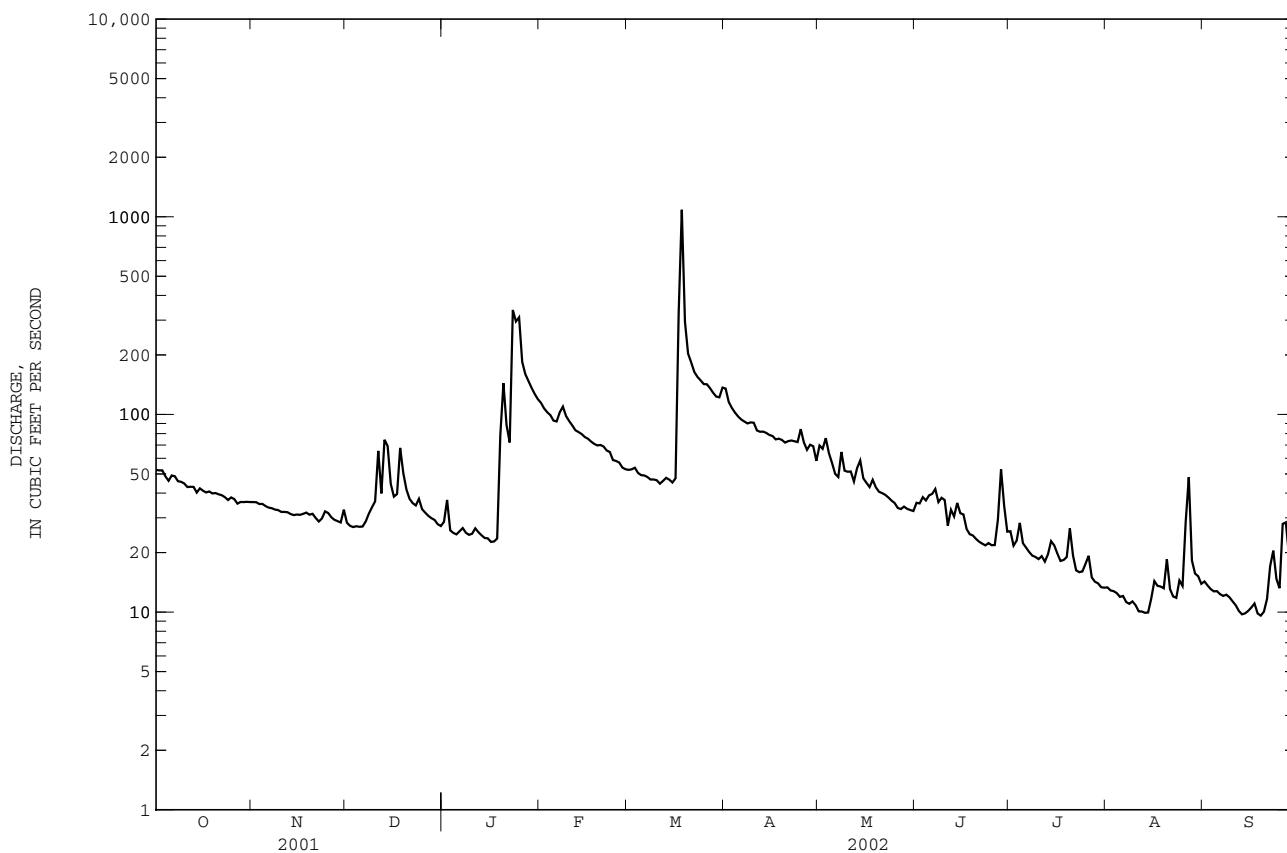
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1996 - 2002

ANNUAL TOTAL	26145			18998.9								
ANNUAL MEAN	71.63			52.05						68.88		
HIGHEST ANNUAL MEAN										106		1997
LOWEST ANNUAL MEAN										29.0		2000
HIGHEST DAILY MEAN	3790	Aug 4		1080	Mar 18					3790	Aug 4	2001
LOWEST DAILY MEAN	14	Jan 6		9.6	Sep 19					9.6	Sep 19	2002
ANNUAL SEVEN-DAY MINIMUM	15	Jan 12		10	Sep 13					10	Sep 13	2002
MAXIMUM PEAK FLOW				1540	Mar 18					a10400	Aug 4	2001
MAXIMUM PEAK STAGE				5.20	Mar 18					12.33	Aug 4	2001
INSTANTANEOUS LOW FLOW				8.6	Sep 18					8.6	Sep 18	2002
ANNUAL RUNOFF (CFSM)	0.91			0.66						0.87		
ANNUAL RUNOFF (INCHES)	12.31			8.95						11.85		
10 PERCENT EXCEEDS	117			98						135		
50 PERCENT EXCEEDS	43			36						46		
90 PERCENT EXCEEDS	26			13						18		

a From rating curve extended above 3,400 ft³/s on basis of contracted-opening measurements of peak flow.

TENNESSEE RIVER BASIN

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLT/RD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	
NOV 20...	1445	21	434	8.2	11.5	726	--	12.4	120	48	--	250	205	
DEC 11...	1130	53	464	8.2	9.5	732	24	10.0	91	E28000	--	243	199	
JAN 22...	1500	50	464	8.3	7.0	732	10	12.2	104	390	--	235	193	
FEB 22...	1430	43	455	8.4	8.0	728	4.1	11.6	103	380	5	244	210	
MAR 21...	1315	155	431	8.2	13.5	727	36	10.8	109	2400	--	215	176	
APR 18...	1445	55	430	8.4	21.0	727	6.4	10.4	122	150	4	216	183	
MAY 29...	1330	24	449	8.2	20.5	725	23	10.2	120	700	--	260	213	
JUN 20...	1430	16	420	8.4	22.5	733	20	9.3	112	470	--	251	206	
JUL 25...	1500	12	427	8.3	24.0	734	32	8.2	101	700	--	257	211	
AUG 08...	1230	8.6	442	8.3	22.5	728	22	8.9	108	530	--	246	202	
SEP 04...	1500	9.2	434	8.3	24.0	725	16	8.7	109	680	--	248	204	
Date		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
NOV 20...	8.8	6.32	1.34	.008	1.35	<.04	.23	1.6	.024	<.02	<.002	<.004	.026	
DEC 11...	13.4	8.87	1.66	.026	1.69	.12	.84	2.5	.076	.13	--	--	--	
JAN 22...	17.7	11.2	2.26	.013	2.27	E.03	.42	2.7	.051	.07	<.004	<.006	.022	
FEB 22...	9.5	7.64	2.19	.008	2.20	<.04	.25	2.4	.020	.03	--	--	--	
MAR 21...	11.3	8.71	2.74	.010	2.75	E.03	.47	3.2	.068	.07	<.004	<.006	.025	
APR 18...	8.2	6.00	1.82	.018	1.84	<.04	.27	2.1	.058	.03	<.004	<.006	.027	
MAY 29...	8.2	6.65	1.68	.019	1.70	<.04	.35	2.0	.097	.05	--	--	--	
JUN 20...	8.1	6.33	--	E.006	1.25	<.04	.28	1.5	.097	.05	<.004	<.006	.040	
JUL 25...	9.1	6.75	1.26	.010	1.27	<.04	.38	1.7	.114	.06	<.004	<.006	.030	
AUG 08...	8.6	6.55	1.15	.009	1.16	<.04	.29	1.4	.100	.05	<.004	<.006	.025	
SEP 04...	9.7	6.79	--	E.007	1.24	<.04	.38	1.6	.106	.07	<.004	<.006	.023	

E--Estimated

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DEETHYL												
	ALPHA BHC DIS- SOLVED (UG/L) (34253)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)
NOV 20...	<.005	<.002	<.005	<.018	E.035	<.005	<.005	<.003	<.004	<.027	<.006	E.004	<.003
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 22...	<.005	<.002	<.005	<.018	E.031	.009	<.005	<.003	<.004	<.027	<.006	.024	<.003
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	<.005	<.002	<.005	<.018	E.015	E.005	<.005	<.003	<.004	<.027	<.006	.013	<.003
APR 18...	<.005	<.002	<.005	<.018	E.025	<.005	<.005	<.003	<.004	<.027	<.006	E.011	<.003
MAY 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.005	<.002	<.005	<.018	E.049	<.005	<.005	<.003	<.004	<.027	<.006	E.011	<.003
JUL 25...	<.005	<.002	<.005	<.018	E.026	<.005	<.005	<.003	<.004	<.027	<.006	.021	<.003
AUG 08...	<.005	<.002	<.005	<.018	E.028	<.005	<.005	<.003	<.004	<.027	<.006	.019	<.003
SEP 04...	<.005	<.002	<.005	<.018	E.033	<.005	<.005	<.003	<.004	<.027	<.006	.015	<.003
Date	PARA- THION, DIS- SOLVED (UG/L) (39542)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN- FLUR- ALIN WAT FLTD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
NOV 20...	<.007	<.010	<.01	<.011	<.010	<.041	<.020	<.003	<.002	<.02	<.009	<.005	<.002
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 22...	<.010	<.010	<.01	<.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	<.010	<.010	<.01	<.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002
APR 18...	<.010	<.010	<.01	<.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002
MAY 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.010	<.010	<.01	E.004	<.010	E.009	<.020	<.003	<.006	<.02	<.009	<.005	<.002
JUL 25...	<.010	<.010	<.01	<.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002
AUG 08...	<.010	<.010	<.01	<.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002
SEP 04...	<.010	<.010	<.01	.005	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002

E--Estimated

TENNESSEE RIVER BASIN

03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
NOV 20...	<.035	<.050	<.006	<.002	<.007	<.002	<.010	<.006	<.011	<.004	<.011	<.02	<.02
DEC 11...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 22...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	E.01
APR 18...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02
MAY 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	E.01
JUL 25...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02
AUG 08...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02
SEP 04...	<.035	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02
					TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)				
Date										SEDI- MENT, SUS- PENDE (MG/L) (80154)			
NOV 20...					<.034	<.02	<.002	<.009	<.005	6.2			
DEC 11...					--	--	--	--	--	15			
JAN 22...					<.034	<.02	<.002	<.009	<.005	13			
FEB 22...					--	--	--	--	--	29			
MAR 21...					<.034	<.02	<.002	<.009	<.005	111			
APR 18...					<.034	<.02	<.002	<.009	<.005	111			
MAY 29...					--	--	--	--	--	80			
JUN 20...					<.034	<.02	<.002	<.009	<.005	26			
JUL 25...					<.034	<.02	<.002	<.009	<.005	31			
AUG 08...					<.034	<.02	<.002	<.009	<.005	19			
SEP 04...					<.034	<.02	<.002	<.009	<.005	20			

E--Estimated

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TENNESSEE RIVER BASIN

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 mi southeast of Lowland, and at river mile 10.3.

DRAINAGE AREA.-- 1,687 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Operated by Tennessee Valley Authority as stage-discharge site from March 1990 to April 2001. Not published by the USGS. Re-established as stage discharge recording station by USGS personnel October 2001 to September 2002. Operated as a water-quality site from March 1996 to February 1998 (destroyed by flood of February 1998). Re-established November 1998, discontinued as water quality site October 2000.

GAGE.--Electronic data logger.

REMARKS.--Records good except for estimated daily discharges for October 1 and Jan. 10-23, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,500 ft³/s, Mar. 18, gage height 21.72 ft; minimum discharge, 208 ft³/s, Sept. 13, 15-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e720	534	614	760	2610	1140	5310	1440	848	867	414	455
2	701	546	580	681	2410	1100	5350	1530	807	707	390	391
3	681	552	658	656	2180	1100	4030	2110	768	610	372	372
4	666	536	628	706	2050	1250	3250	2060	750	678	339	346
5	650	527	580	727	1920	1470	2780	2080	732	1220	331	330
6	660	530	557	661	1800	1220	2470	2080	752	968	363	320
7	642	515	560	672	1840	1130	2230	1810	1320	783	339	311
8	622	511	579	819	2270	1150	2070	1650	1490	669	305	292
9	617	510	585	831	2750	1130	1970	1680	1260	599	289	272
10	598	519	635	e700	2380	1090	1950	1520	965	590	294	259
11	586	504	816	e900	2180	1080	2140	1420	855	625	308	242
12	584	502	1220	e1200	2070	1080	2000	1320	767	547	281	234
13	588	504	1970	e1300	1950	1070	1820	1360	732	538	280	225
14	583	498	1720	e1000	1830	1180	1760	1760	738	601	259	226
15	600	494	1560	e900	1740	1540	1790	1810	762	603	297	225
16	1110	497	1280	e800	1660	1450	1750	1490	833	687	316	212
17	1030	504	1120	e700	1570	4700	1650	1260	764	702	318	252
18	771	486	1390	e600	1510	20400	1560	1220	689	601	363	389
19	682	482	1930	e1000	1460	22300	1640	1200	641	525	434	468
20	649	500	2080	e2500	1430	11800	1620	1340	609	540	445	384
21	627	500	1560	e4500	1420	6820	1500	1220	575	509	409	373
22	609	496	1310	e6000	1420	4750	1450	1110	560	476	412	397
23	594	496	1130	e8000	1390	3680	1380	1070	559	485	418	426
24	584	506	1090	17200	1280	3110	1330	1050	522	1210	390	629
25	606	503	1110	17600	1250	2780	1510	1010	508	765	369	958
26	598	521	1120	14100	1220	2540	1550	960	500	972	406	893
27	582	1030	1020	7980	1190	2420	1560	917	517	848	681	981
28	544	872	936	5110	1160	2480	1370	884	575	647	917	3810
29	530	693	884	3780	---	2270	1410	1050	898	535	1040	2860
30	540	649	844	3310	---	2200	1350	1020	966	501	730	1480
31	537	---	828	2860	---	3360	---	893	---	445	561	---
TOTAL	20091	16517	32894	108553	49940	114790	63550	43324	23262	21053	13070	19012
MEAN	648.1	550.6	1061	3502	1784	3703	2118	1398	775.4	679.1	421.6	633.7
MAX	1110	1030	2080	17600	2750	22300	5350	2110	1490	1220	1040	3810
MIN	530	482	557	600	1160	1070	1330	884	500	445	259	212

e Estimated

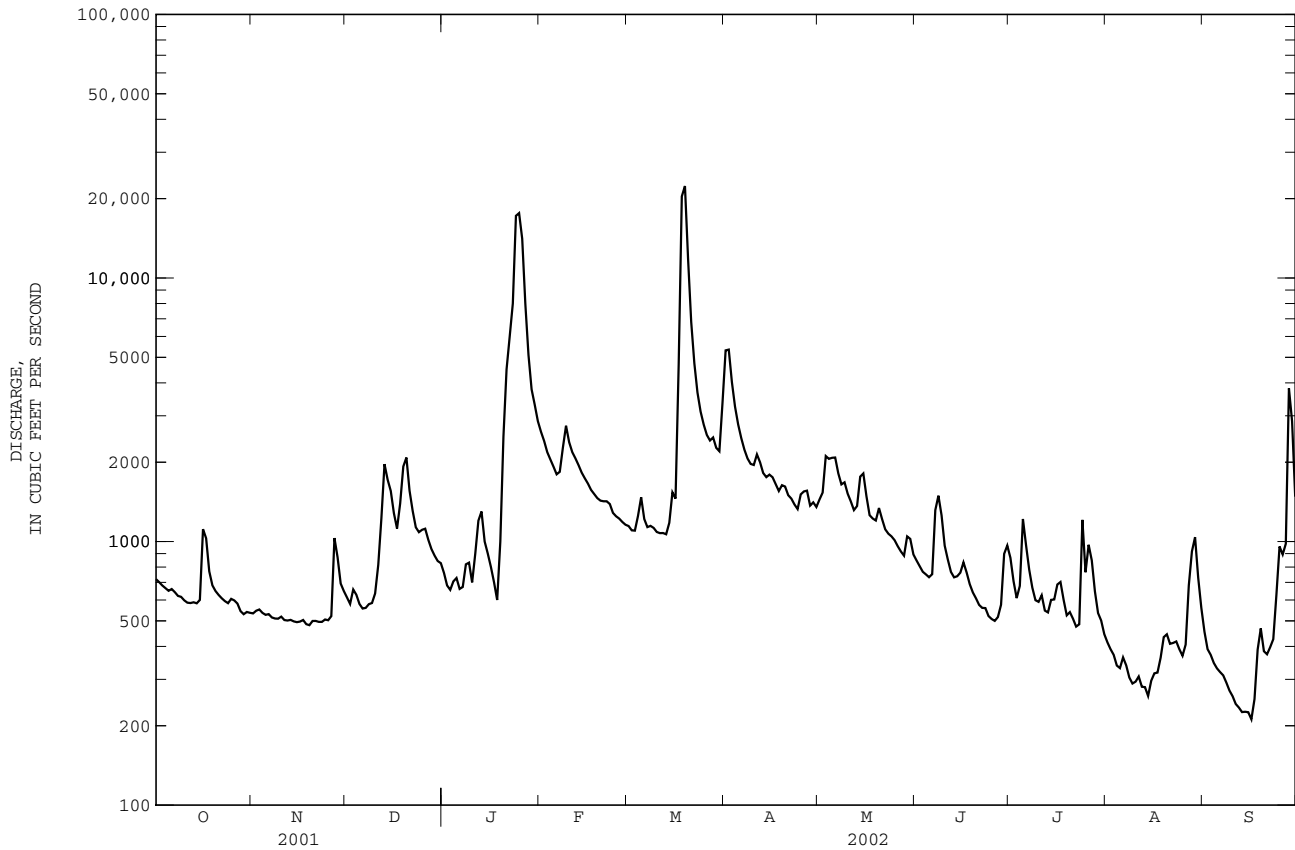
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

MEAN	651.3	895.1	1372	2813	3057	3656	3128	2551	1623	1388	1063	684.9
MAX	944	1787	3191	4077	5804	6211	5946	4148	2405	2094	1900	1005
(WY)	1997	1997	1997	1998	1998	1997	1998	1998	1998	1999	1996	1996
MIN	458	535	653	1268	1784	2515	1673	1398	775	679	422	477
(WY)	2001	1999	2001	2001	2002	2000	1999	2002	2002	2002	2002	1999

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1996 - 2002

ANNUAL TOTAL	332566			526056								
ANNUAL MEAN	1576			1441						1952		
HIGHEST ANNUAL MEAN										2643		1998
LOWEST ANNUAL MEAN										1441		2002
HIGHEST DAILY MEAN	9270	Feb 17		22300	Mar 19					22900	Jan 9	1998
LOWEST DAILY MEAN	471	Jan 12		212	Sep 16					212	Sep 16	2002
ANNUAL SEVEN-DAY MINIMUM	494	Nov 14		231	Sep 11					231	Sep 11	2002
MAXIMUM PEAK FLOW				26500	Mar 18					26500	Mar 18	2002
MAXIMUM PEAK STAGE				21.72	Mar 18					21.72	Mar 18	2002
INSTANTANEOUS LOW FLOW				a208	Sep 13					a208	Sep 13	2002
10 PERCENT EXCEEDS	3410			2390						3910		
50 PERCENT EXCEEDS	986			844						1310		
90 PERCENT EXCEEDS	516			390						517		

a Also occurred Sept. 15, 16, 2002.



TENNESSEE RIVER BASIN

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN

WATER-QUALITY RECORDS

LOCATION.--Lat 36°07'34", long 83°10'31", Cocke County, Hydrologic Unit 06010108, on left bank at Jones Bridge on Tennessee Highway 160, 2.85 mi southeast of Lowland, and at mile 10.3.

DRAINAGE AREA.--1,687 mi².

PERIOD OF RECORD.--March 1996 to February 1998 (destroyed by flood of February 1998). Re-established November 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	TUR-BID-ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	E COLI, MTEC MF WATER (COL/100 ML) (31633)	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	
NOV 20...	1130	484	235	8.1	16.0	739	--	10.8	113	E11	--	114	93	
JAN 22...	1100	3350	141	7.6	5.5	745	75	11.5	93	1400	--	45	37	
FEB 22...	1045	1300	220	8.2	8.0	739	2.0	10.7	93	E15	--	98	80	
MAR 20...	1300	11300	142	7.6	13.5	730	94	9.0	90	1800	--	55	45	
APR 18...	1030	1600	191	8.4	20.5	738	9.2	8.0	92	E19	--	85	70	
MAY 30...	1400	1080	194	8.7	24.0	731	7.2	11.1	138	E11	2	100	86	
JUN 20...	1100	601	199	8.1	24.5	739	14	7.8	96	E32	--	96	79	
JUL 25...	1115	746	239	7.8	26.0	735	120	7.4	95	2400	--	106	87	
SEP 04...	1030	352	207	8.2	27.0	736	15	6.9	90	42	--	87	71	
Date		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO-CHLOR, WATER, FLTRD REC (UG/L) (49260)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS-SOLVED (UG/L) (34253)
NOV 20...	10.8	7.61	<.008	.32	<.04	.22	.54	.012	<.02	<.002	<.004	E.007	<.005	
JAN 22...	13.2	6.82	E.006	.96	.04	.77	1.7	.081	.03	<.004	<.006	.008	<.005	
FEB 22...	12.7	6.28	E.004	.76	<.04	.16	.92	.005	<.02	--	--	--	--	
MAR 20...	9.8	3.47	E.006	.65	E.02	.80	1.5	.112	.09	<.004	<.006	<.007	<.005	
APR 18...	10.2	4.06	E.004	.40	<.04	.24	.64	.029	<.02	<.004	<.006	.011	<.005	
MAY 30...	8.6	4.28	E.004	.29	<.04	.24	.53	.030	<.02	--	--	--	--	
JUN 20...	9.4	6.35	<.008	.27	<.04	.20	.47	.038	<.02	<.004	<.006	.037	<.005	
JUL 25...	16.2	7.19	.016	.67	<.04	.66	1.3	.19	.07	<.004	<.006	.164	<.005	
SEP 04...	12.6	7.75	E.004	.37	<.04	.28	.65	.066	.03	<.004	<.006	.020	<.005	

E--Estimated

TENNESSEE RIVER BASIN

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P, P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)
NOV 20...	<.002	<.005	<.018	E.007	<.005	<.005	<.003	<.004	<.027	<.006	E.002	<.003	<.007
JAN 22...	<.002	<.005	<.018	E.005	<.005	<.005	<.003	<.004	<.027	<.006	E.005	<.003	<.010
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	<.002	<.005	<.018	<.006	.007	<.005	<.003	<.004	<.027	<.006	E.005	<.003	<.010
APR 18...	<.002	<.005	<.018	E.007	<.005	<.005	<.003	<.004	<.027	<.006	E.011	<.003	<.010
MAY 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.002	<.005	<.018	E.011	<.005	<.005	<.003	<.004	<.027	<.006	E.009	<.003	<.010
JUL 25...	<.002	<.005	<.018	E.027	<.005	<.005	<.003	<.004	<.027	.018	.034	<.003	<.010
SEP 04...	<.002	<.005	<.018	E.008	<.005	<.005	<.003	<.004	<.027	<.006	.017	<.003	<.010
Date	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
NOV 20...	<.010	<.01	<.011	<.010	<.041	<.020	<.003	<.002	<.02	<.009	<.005	<.002	<.035
JAN 22...	<.010	<.01	.009	<.010	E.007	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
FEB 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 20...	<.010	<.01	.013	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
APR 18...	<.010	<.01	.013	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
MAY 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.010	<.01	.020	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
JUL 25...	<.010	<.01	.011	<.010	E.014	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
SEP 04...	<.010	E.01	.011	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035

TENNESSEE RIVER BASIN

03467609 NOLICHUCKY RIVER NEAR LOWLAND, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

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03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN

LOCATION.--Lat 35°51'55", long 83°32'01", Sevier County, Hydrologic Unit 06010107, on left bank of county road, 1.2 mi downstream from East Fork, 1.2 mi upstream from West Prong, 0.8 mi east of Sevierville, and at mi 7.5.

DRAINAGE AREA.-- 184 mi².

PERIOD OF RECORD.--August 1988 to current year.

REVISED RECORD.--WDR TN-94-1: 1989-91 (M): 1992, 1993(P).

GAGE.--Data collection platform. Datum of gage is 898.08 ft above NGVD of 1929.

REMARKS.--Records good. The town of Sevierville diverts an average of about 1.5 ft³/s (1.0 MGD) for municipal supply above gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1700	6,740	10.41	Mar 18	1045	8,170	11.65
Mar 17	1600	*12,200	*14.12				

Minimum discharge, 10 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	42	113	78	277	90	1230	624	108	43	60	42
2	83	42	83	83	247	93	778	536	102	50	57	39
3	78	42	69	74	220	125	549	1180	96	64	51	35
4	74	41	62	67	207	121	429	1520	94	92	45	34
5	70	40	56	67	183	100	359	1170	151	101	43	33
6	72	38	51	76	176	97	314	591	122	62	38	34
7	77	38	52	85	245	93	282	418	119	47	36	28
8	68	37	69	71	274	91	256	330	102	41	33	26
9	64	36	134	65	239	90	276	275	91	60	30	25
10	62	37	177	75	219	107	399	244	81	51	28	24
11	59	40	405	119	213	96	311	218	75	60	27	21
12	52	35	224	148	194	98	266	195	70	81	27	18
13	48	33	475	123	179	137	242	269	68	87	25	18
14	100	35	463	110	164	131	227	376	81	184	24	20
15	140	35	323	103	152	120	218	240	85	168	28	30
16	82	34	219	96	144	294	203	204	72	98	32	42
17	68	34	192	92	136	6240	195	180	65	73	51	29
18	60	35	607	96	126	6480	175	351	59	61	61	25
19	56	35	361	1260	120	2000	181	329	56	62	52	28
20	54	37	252	1780	121	1100	166	244	53	59	71	24
21	54	43	196	729	141	1000	154	212	51	81	55	78
22	50	40	161	483	124	676	171	190	45	65	43	204
23	47	37	143	3410	115	519	159	171	43	103	37	256
24	45	38	193	3300	109	433	141	156	46	119	35	117
25	52	192	155	3350	105	370	311	143	50	266	41	80
26	52	156	133	1490	103	334	265	150	62	255	58	245
27	47	88	118	818	102	371	210	186	60	146	74	595
28	45	69	108	544	93	307	194	165	54	106	94	482
29	45	59	100	421	---	274	219	140	50	94	71	247
30	43	74	90	350	---	620	179	125	47	81	55	148
31	43	---	81	302	---	1550	---	116	---	70	47	---
TOTAL	1980	1542	5865	19865	4728	24157	9059	11248	2258	2930	1429	3027
MEAN	63.87	51.40	189.2	640.8	168.9	779.3	302.0	362.8	75.27	94.52	46.10	100.9
MAX	140	192	607	3410	277	6480	1230	1520	151	266	94	595
MIN	43	33	51	65	93	90	141	116	43	41	24	18
CFSM	0.35	0.28	1.03	3.48	0.92	4.24	1.64	1.97	0.41	0.51	0.25	0.55
IN.	0.40	0.31	1.19	4.02	0.96	4.88	1.83	2.27	0.46	0.59	0.29	0.61

03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	120.8	188.8	336.8	537.4	565.9	678.3	467.9	365.6	309.6	231.5	178.2	141.6
MAX	335	374	743	873	1024	1426	1141	576	635	510	477	530
(WY)	1990	1990	1992	1994	1994	1994	1994	1989	1997	1999	1996	1989
MIN	32.5	51.4	105	245	169	301	124	151	75.3	90.7	46.1	29.8
(WY)	1999	2002	2001	2001	2002	2001	1995	2001	2002	1993	2002	1998

SUMMARY STATISTICS

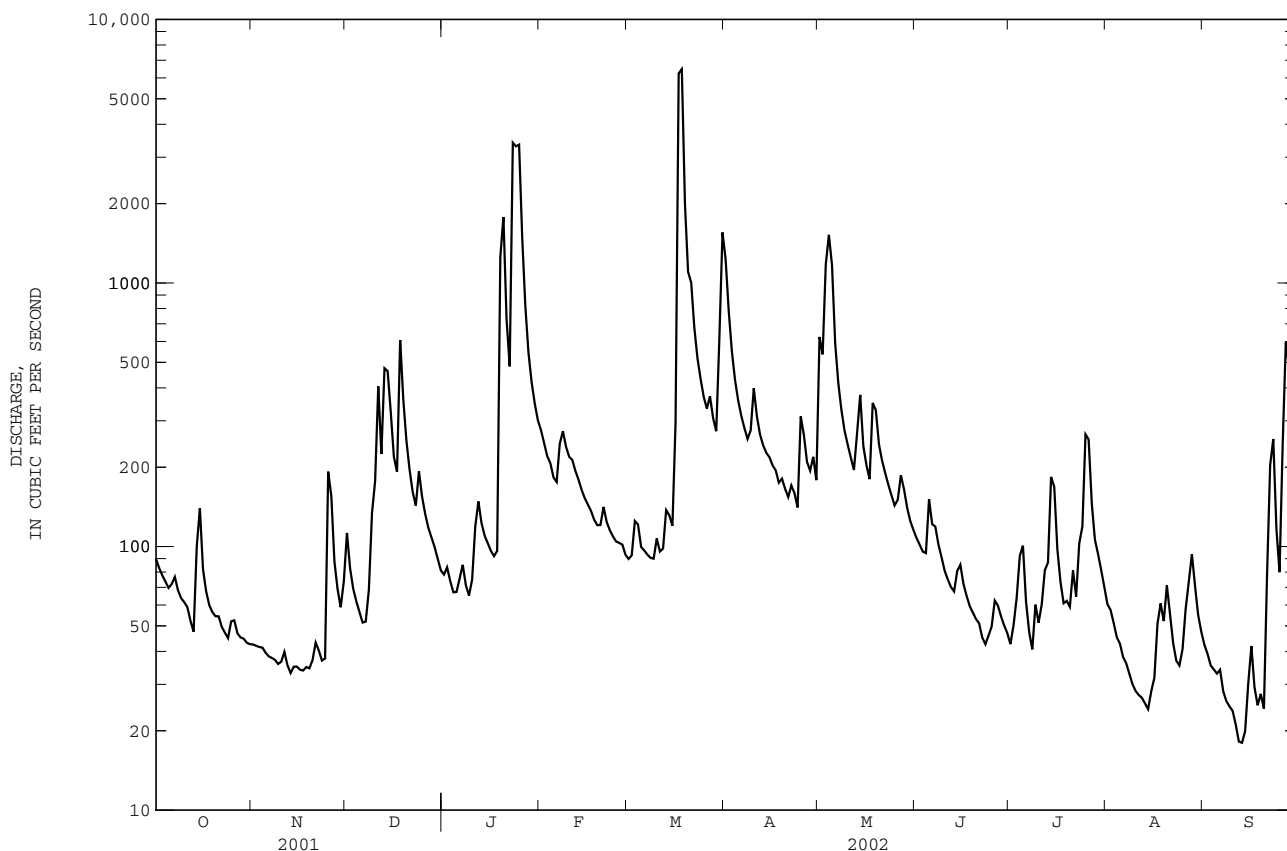
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1988 - 2002

ANNUAL TOTAL	80693		88088									
ANNUAL MEAN	221.1		241.3							340.4		
HIGHEST ANNUAL MEAN										573		1994
LOWEST ANNUAL MEAN										123		1988
HIGHEST DAILY MEAN	2930	Feb 17	6480	Mar 18						10900	Mar 28	1994
LOWEST DAILY MEAN	33	Nov 13	a18	Sep 12						a18	Sep 12	2002
ANNUAL SEVEN-DAY MINIMUM	34	Nov 12	22	Sep 8						20	Sep 14	1998
MAXIMUM PEAK FLOW			12200	Mar 17						19700	Mar 28	1994
MAXIMUM PEAK STAGE			14.12	Mar 17						17.50	Mar 28	1994
INSTANTANEOUS LOW FLOW			10	Sep 14						10	Sep 14	2002
ANNUAL RUNOFF (CFSM)	1.20		1.31							1.85		
ANNUAL RUNOFF (INCHES)	16.31		17.81							25.14		
10 PERCENT EXCEEDS	449		419							733		
50 PERCENT EXCEEDS	132		96							194		
90 PERCENT EXCEEDS	52		36							54		

a Also occurred on Sept. 13, 2002.



03491000 BIG CREEK NEAR ROGERSVILLE, TN

LOCATION.--Lat 36°25'34", long 82°57'07", Hawkins County, Hydrologic Unit 06010104, on left bank 300 ft upstream from county road bridge, 3 mi northeast of Rogersville, and at mile 2.0.

DRAINAGE AREA.--47.3 mi².

PERIOD OF RECORD.--April 1941 to June 1949. Occasional low-flow measurements, water years 1950-55, 1957. Annual maximum, water years 1955-57; October 1957 to current year.

REVISED RECORDS.--WSP 1436: 1945.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 1,128.9 ft above NGVD of 1929 (levels based on City of Rogersville construction plans for pumping station). Dec. 7, 1954, to Sept. 30, 1957, crest-stage gage at same site and datum.

REMARKS.--Records good except for periods of estimated daily values, Dec. 1, 2, 10-18, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0330	1,890	5.47	Mar 18	0945	unknown	11.20
Mar 17	1645	1,980	5.57				

Minimum discharge, 1.1 ft³/s, Sept. 8, 9, 10, 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	4.2	e8.0	5.2	46	11	199	17	9.8	6.8	7.0	2.0
2	5.4	4.0	e7.0	5.1	39	12	124	20	9.5	8.2	5.0	2.0
3	5.7	4.1	6.4	4.9	34	14	94	53	9.5	6.6	4.0	1.9
4	5.2	4.9	5.9	4.7	31	14	74	37	9.4	7.6	3.3	1.8
5	4.8	5.3	5.4	4.6	27	12	61	29	8.4	9.9	2.8	1.5
6	5.7	5.0	5.1	5.3	26	11	54	23	8.2	7.0	2.5	1.6
7	5.4	5.1	5.2	7.1	36	11	48	22	8.1	6.0	2.1	1.5
8	5.8	5.1	5.7	8.6	38	11	43	24	7.7	5.3	1.9	1.2
9	5.8	5.1	7.0	7.6	34	11	42	24	7.5	4.5	1.7	1.2
10	5.8	5.1	e12	7.4	31	11	43	33	6.8	4.3	1.8	1.2
11	5.6	4.9	e20	9.3	28	11	36	26	6.3	4.5	1.8	1.1
12	6.6	4.9	17	15	25	10	33	21	6.1	4.0	1.9	1.3
13	4.7	5.1	e25	13	23	11	32	49	5.8	4.6	1.8	1.4
14	7.0	4.8	e22	10	21	12	30	128	7.6	5.6	1.5	1.6
15	10	4.8	e15	9.2	20	11	29	56	8.8	6.2	1.8	1.8
16	7.0	4.9	e12	8.1	19	16	26	38	8.2	5.5	1.9	1.9
17	4.5	4.8	e19	7.3	18	798	25	31	6.8	4.6	2.3	1.9
18	4.4	4.8	e26	7.5	16	---	23	37	6.4	4.1	2.8	1.9
19	3.9	4.8	24	100	15	472	22	32	5.7	4.1	5.6	1.9
20	4.1	4.9	16	179	16	239	21	24	5.1	6.4	4.5	2.0
21	4.1	4.8	12	71	20	171	21	21	4.9	13	2.9	2.7
22	3.9	4.8	9.5	46	17	126	20	19	4.7	8.9	2.4	4.2
23	4.0	4.9	8.7	463	15	102	19	18	4.5	14	2.2	12
24	3.6	5.6	9.8	685	15	86	17	16	4.4	62	2.3	7.9
25	3.9	7.2	10	880	14	72	25	15	4.3	19	2.2	4.6
26	3.9	8.0	8.9	214	13	65	23	14	5.2	19	3.1	45
27	3.9	7.8	7.9	135	13	61	18	14	5.8	10	4.4	83
28	4.2	6.9	7.2	99	12	52	19	13	8.3	7.7	4.8	30
29	4.1	6.2	6.7	78	---	47	19	12	10	5.8	3.9	18
30	4.2	6.5	6.4	63	---	48	16	12	8.2	4.7	2.9	12
31	4.1	---	5.8	53	---	182	---	11	---	6.9	2.3	---
TOTAL	156.9	159.3	356.6	3205.9	662	2710	1256	889	212.0	286.8	91.4	252.1
MEAN	5.061	5.310	11.50	103.4	23.64	90.33	41.87	28.68	7.067	9.252	2.948	8.403
MAX	10	8.0	26	880	46	798	199	128	10	62	7.0	83
MIN	3.6	4.0	5.1	4.6	12	10	16	11	4.3	4.0	1.5	1.1
CFSM	0.11	0.11	0.24	2.19	0.50	1.91	0.89	0.61	0.15	0.20	0.06	0.18
IN.	0.12	0.13	0.28	2.52	0.52	2.13	0.99	0.70	0.17	0.23	0.07	0.20

e Estimated

03491000 BIG CREEK NEAR ROGERSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2002, BY WATER YEAR (WY)

MEAN	14.04	28.76	69.12	103.1	128.9	128.6	88.37	56.59	29.03	22.97	16.63	11.61
MAX	109	124	258	331	472	366	342	206	150	96.5	67.1	58.7
(WY)	1972	1974	1992	1974	1994	1963	1998	1958	1989	1960	1942	1989
MIN	3.19	4.43	5.06	9.33	23.6	27.4	15.4	10.7	7.07	4.35	2.45	2.60
(WY)	2001	1988	1966	1981	2002	1983	1986	1985	2002	1988	1988	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

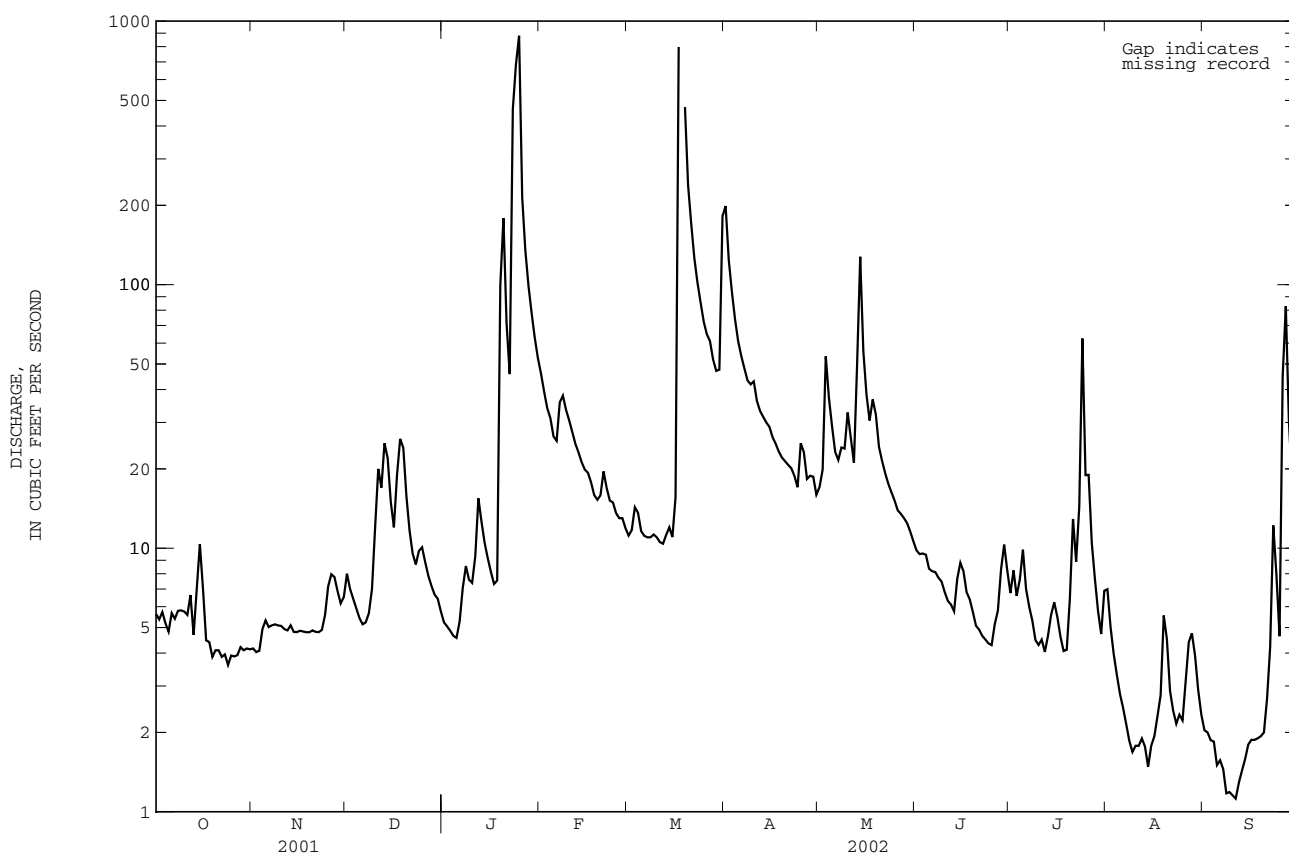
WATER YEARS 1941 - 2002

ANNUAL TOTAL	9259.9		10238.0		57.77	
ANNUAL MEAN	25.37		28.13		123	
HIGHEST ANNUAL MEAN					1994	
LOWEST ANNUAL MEAN					20.1	
HIGHEST DAILY MEAN	650	Feb 17	880	Jan 25	4000	Feb 11 1994
LOWEST DAILY MEAN	3.6	Oct 24	1.1	Sep 11	1.1	Sep 11 2002
ANNUAL SEVEN-DAY MINIMUM	3.9	Oct 21	1.3	Sep 7	1.3	Sep 7 2002
MAXIMUM PEAK FLOW			unknown	Mar 18	a5760	Mar 12 1963
MAXIMUM PEAK STAGE			11.20	Mar 18	b12.21	Apr 17 1998
INSTANTANEOUS LOW FLOW			c1.1	Sep 8	c1.1	Sep 8 2002
ANNUAL RUNOFF (CFSM)	0.54		0.59		1.22	
ANNUAL RUNOFF (INCHES)	7.28		8.05		16.59	
10 PERCENT EXCEEDS	58		48		124	
50 PERCENT EXCEEDS	9.2		8.1		22	
90 PERCENT EXCEEDS	4.6		2.5		5.2	

a From rating curve extended above 3,000 ft³/s on basis of contracted-opening measurements of peak flow.

b Due to backwater from debris.

c Also occurred Sept. 9, 10, 11, 12.



TENNESSEE RIVER BASIN

03497300 LITTLE RIVER ABOVE TOWNSEND, TN

LOCATION.--Lat 35°39'52", long 83°42'41", Blount County, Hydrologic Unit 06010201, in Great Smoky Mountains National Park, on left bank along Tennessee Highway 73, 0.3 mi upstream from Rush Branch, 0.4 mi southeast of Park entrance, 2.2 mi southeast of Townsend, and at mile 35.3.

DRAINAGE AREA.--106 mi².

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Data logger and crest-stage gage. Datum of gage is 1,106.92 ft above NGVD of 1929.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	0815	3,700	6.04	Mar 18	1145	3,270	5.72
Mar 17	1300	*4,300	*6.47				

Minimum discharge, 33 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	57	111	123	313	119	842	319	172	80	80	89
2	89	57	94	140	270	133	667	286	158	71	77	81
3	84	56	86	116	245	175	534	497	146	113	71	70
4	79	55	81	105	229	147	432	900	156	195	63	62
5	75	53	77	130	204	135	365	766	142	96	68	56
6	80	52	74	117	215	136	318	531	136	77	58	50
7	77	51	76	113	322	132	285	408	142	66	54	46
8	70	50	90	99	288	128	260	334	118	67	49	43
9	67	50	143	98	280	133	293	295	109	124	47	41
10	64	49	169	115	274	153	295	281	102	85	45	38
11	62	48	394	173	266	128	251	241	95	83	43	35
12	61	48	253	151	245	173	233	215	88	90	43	35
13	66	47	498	138	228	217	223	299	88	116	41	34
14	142	47	604	131	212	206	214	344	118	224	39	36
15	131	46	472	128	199	194	209	262	95	142	49	45
16	89	46	344	121	190	233	198	234	83	104	113	58
17	79	46	346	119	177	1910	213	214	78	85	72	49
18	74	46	649	127	165	2300	186	424	74	78	107	49
19	71	45	503	1430	158	1300	211	343	71	77	62	52
20	70	54	376	1090	171	849	188	299	102	145	59	42
21	68	51	298	688	174	714	179	269	72	132	51	185
22	66	46	249	506	154	574	182	243	65	105	54	337
23	65	45	237	2300	146	479	164	222	63	145	46	205
24	64	60	265	2310	140	406	156	203	68	133	44	132
25	87	201	215	2100	135	351	245	185	84	193	44	116
26	69	139	197	1090	142	350	192	197	78	153	60	286
27	61	95	182	725	133	351	179	288	66	127	203	498
28	60	82	171	542	119	297	177	258	64	107	128	419
29	59	75	160	451	---	274	172	214	90	97	84	274
30	58	110	145	377	---	658	156	194	82	108	77	201
31	58	---	134	325	---	1030	---	193	---	96	75	---
TOTAL	2341	1907	7693	16178	5794	14385	8219	9958	3005	3514	2106	3664
MEAN	75.52	63.57	248.2	521.9	206.9	464.0	274.0	321.2	100.2	113.4	67.94	122.1
MAX	142	201	649	2310	322	2300	842	900	172	224	203	498
MIN	58	45	74	98	119	119	156	185	63	66	39	34
CFSM	0.71	0.60	2.34	4.92	1.95	4.38	2.58	3.03	0.94	1.07	0.64	1.15
IN.	0.82	0.67	2.70	5.68	2.03	5.05	2.88	3.49	1.05	1.23	0.74	1.29

03497300 LITTLE RIVER ABOVE TOWNSEND, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	121.9	201.9	330.4	414.7	444.8	513.4	388.3	280.7	221.3	192.8	165.9	116.8
MAX	373	436	725	796	857	1195	818	774	648	815	530	492
(WY)	1973	1967	1992	1996	1990	1994	1998	1984	1989	1971	1966	1989
MIN	28.9	36.0	58.8	72.7	191	185	141	124	50.4	63.8	40.5	31.9
(WY)	1988	1988	1966	1981	1978	1988	1995	1986	1988	1993	1987	1998

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

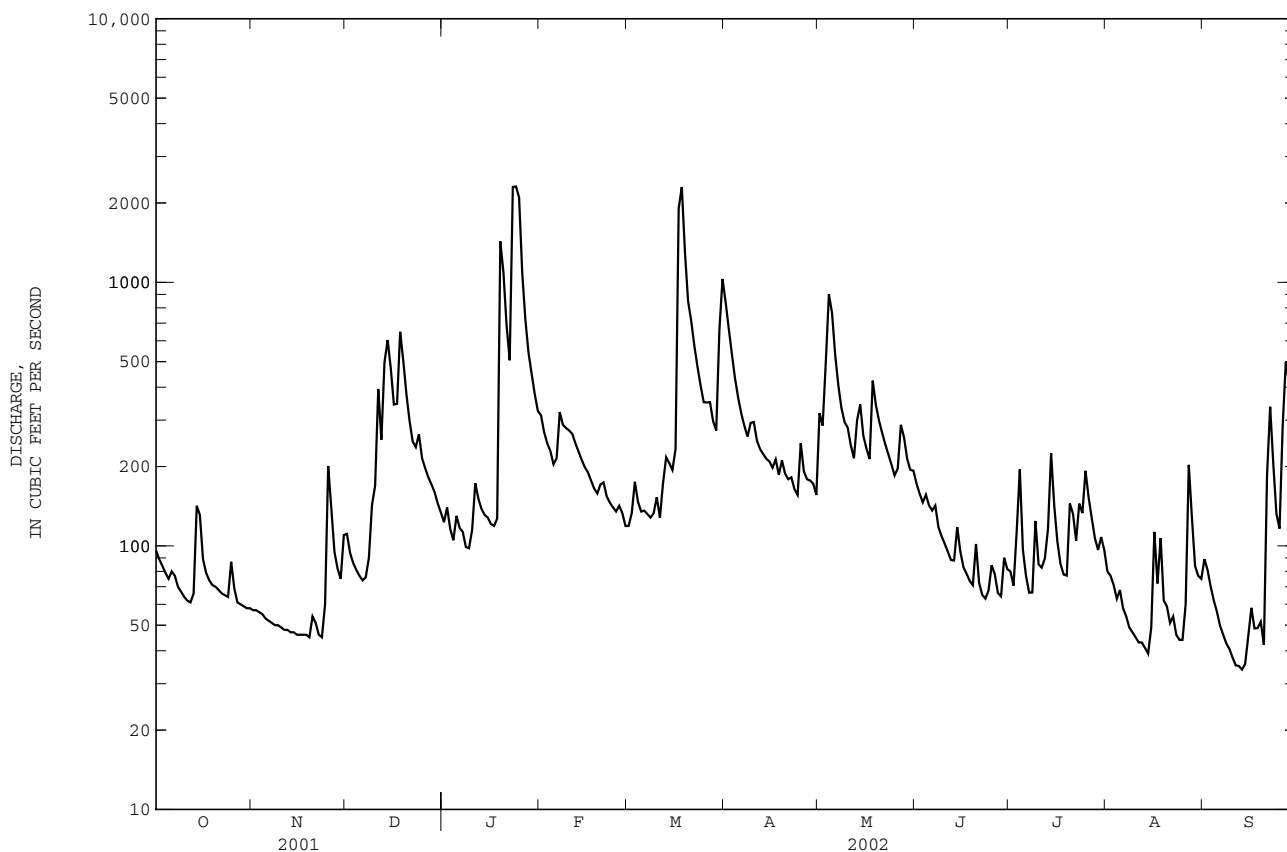
WATER YEARS 1964 - 2002

ANNUAL TOTAL	77055	78764	
ANNUAL MEAN	211.1	215.8	282.1
HIGHEST ANNUAL MEAN			460
LOWEST ANNUAL MEAN			141
HIGHEST DAILY MEAN	1760	2310	9000
LOWEST DAILY MEAN	45	34	22
ANNUAL SEVEN-DAY MINIMUM	46	37	23
MAXIMUM PEAK FLOW		4300	27100
MAXIMUM PEAK STAGE		6.47	a15.75
INSTANTANEOUS LOW FLOW		b33	c21
ANNUAL RUNOFF (CFSM)	1.99	2.04	2.66
ANNUAL RUNOFF (INCHES)	27.04	27.64	36.16
10 PERCENT EXCEEDS	404	412	554
50 PERCENT EXCEEDS	151	132	193
90 PERCENT EXCEEDS	65	50	60

a From flood marks in gage house.

b Also occurred on Sept. 14.

c Results of freeze-up.



TENNESSEE RIVER BASIN

03498500 LITTLE RIVER NEAR MARYVILLE, TN

LOCATION.--Lat 35°47'10", long 83°53'04", Blount County, Hydrologic Unit 06010201, on left bank 200 ft above bridge on U.S. Highway 411, 0.8 mi downstream from Crooked Creek, 5.0 mi east of Maryville, and at mile 17.3.

DRAINAGE AREA.--269 mi².

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Data-collection platform and crest-stage gage. Datum of gage is 850.00 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuations of flow caused by small mills above station. The town of Maryville diverted an average of about 4.0 ft³/s (2.6 MGD) for municipal supply 100 ft upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water- quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 25, 1875, reached a stage of 31 ft, discharge, 50,000 ft³/s, and flood of April 1, 1896, reached a stage of 26 ft, discharge, 36,000 ft³/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	1215	6,140	12.44	Mar 18	1315	17,000	18.29
Mar 17	1530	*22,800	*20.83				

Minimum discharge, 56 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	92	158	184	589	223	1900	540	259	143	137	100
2	135	90	130	177	527	227	1260	487	241	150	128	110
3	129	91	120	181	459	268	952	908	227	150	126	100
4	123	89	114	166	433	256	794	2140	219	241	116	89
5	118	87	109	151	390	229	687	1740	256	175	110	81
6	118	85	106	178	380	229	605	947	218	143	107	75
7	125	85	108	184	591	223	539	721	227	129	97	72
8	114	83	130	163	644	217	488	581	201	121	92	68
9	109	82	175	153	562	220	474	485	187	145	87	64
10	106	83	239	167	522	251	524	466	176	157	83	63
11	102	81	670	210	497	219	434	404	168	137	81	59
12	99	81	367	232	447	241	404	366	160	140	79	58
13	100	80	1090	203	416	340	388	555	156	155	78	59
14	102	79	1130	193	388	321	376	833	173	514	75	58
15	212	78	765	187	364	304	365	518	177	276	76	63
16	134	78	526	180	349	439	343	425	158	190	155	71
17	118	78	535	175	331	10400	352	381	149	161	145	79
18	112	77	1080	181	308	11100	323	566	142	144	142	72
19	109	77	783	1970	295	3760	331	519	137	140	119	73
20	107	79	578	3220	304	1970	313	435	150	158	101	72
21	105	88	430	1440	326	1610	297	397	142	216	96	198
22	102	81	357	926	287	1130	311	367	127	164	93	498
23	100	78	329	e7400	271	907	286	340	123	202	86	320
24	97	82	428	e8400	259	794	267	314	140	194	83	187
25	119	173	330	e6100	250	700	407	289	157	248	82	150
26	126	221	296	2580	250	639	339	268	232	235	87	359
27	101	141	272	1500	249	652	300	359	228	190	197	534
28	96	122	253	1040	229	548	288	372	299	166	170	517
29	94	111	238	844	---	502	293	319	191	154	121	345
30	94	115	219	725	---	1570	259	288	181	154	105	251
31	93	---	201	628	---	3240	---	280	---	157	100	---
TOTAL	3542	2867	12266	40038	10917	43729	14899	17610	5601	5649	3354	4845
MEAN	114.3	95.57	395.7	1292	389.9	1411	496.6	568.1	186.7	182.2	108.2	161.5
MAX	212	221	1130	8400	644	11100	1900	2140	299	514	197	534
MIN	93	77	106	151	229	217	259	268	123	121	75	58
CFSM	0.42	0.36	1.47	4.80	1.45	5.24	1.85	2.11	0.69	0.68	0.40	0.60
IN.	0.49	0.40	1.70	5.54	1.51	6.05	2.06	2.44	0.77	0.78	0.46	0.67

e Estimated

03498500 LITTLE RIVER NEAR MARYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2002, BY WATER YEAR (WY)

MEAN	193.7	331.9	605.8	806.7	932.9	1011	753.8	496.8	376.2	318.9	249.2	176.3
MAX	830	1160	1679	1792	2254	2517	1701	1782	1261	1391	867	1019
(WY)	1973	1958	1962	1974	1957	1994	1994	1984	1989	1971	1971	1989
MIN	50.7	65.4	103	121	308	385	224	208	86.1	100	78.1	55.6
(WY)	1988	1988	1966	1981	1954	1988	1986	1986	1988	1952	1987	1954

SUMMARY STATISTICS

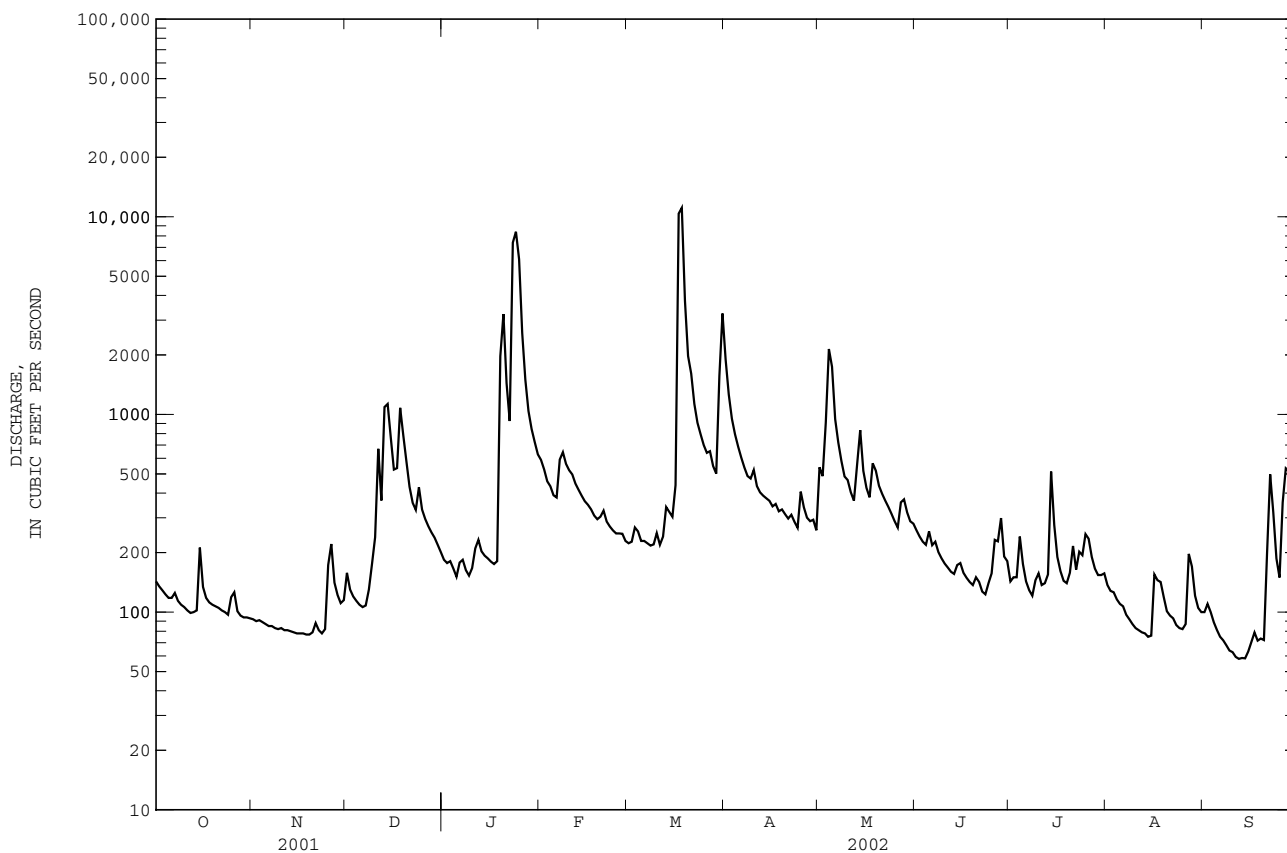
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1951 - 2002

ANNUAL TOTAL	143749	165317	
ANNUAL MEAN	393.8	452.9	517.9
HIGHEST ANNUAL MEAN			862
LOWEST ANNUAL MEAN			220
HIGHEST DAILY MEAN	5160	Feb 17	11100
LOWEST DAILY MEAN	77	Nov 18	58
ANNUAL SEVEN-DAY MINIMUM	78	Nov 14	61
MAXIMUM PEAK FLOW			22800
MAXIMUM PEAK STAGE			20.83
INSTANTANEOUS LOW FLOW			56
ANNUAL RUNOFF (CFSM)	1.46	1.68	1.93
ANNUAL RUNOFF (INCHES)	19.88	22.86	26.16
10 PERCENT EXCEEDS	735	723	1030
50 PERCENT EXCEEDS	248	202	311
90 PERCENT EXCEEDS	104	83	99

a From rating curve extended above 14,800 ft³/s on basis of a contracted opening measurement and road overflow computations.



TENNESSEE RIVER BASIN

03498850 LITTLE RIVER NEAR ALCOA, TN

LOCATION.--Lat 35°48'32", long 83°55'36", Blount County, Hydrologic Unit 06010201, at Singleton Bend on left bank, 3.0 mi northeast of Alcoa, and at mile 9.7.

DRAINAGE AREA.--300 mi².

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 814.22 ft above NGVD of 1929.

REMARKS.--Records good. Diurnal fluctuations at low flow caused by small mills above station. The town of Maryville diverts an average of about 4.0 ft³/s (2.6 MGD) for municipal supply 7.6 mi upstream from gage and the town of Alcoa at the gage diverts about 17.2 ft³/s (11.1 MGD). Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined, Mar. 17, gage height 19.24 ft; minimum 34 ft³/s, Sept. 11, 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	86	152	210	636	228	2010	557	276	98	121	97
2	135	84	130	193	597	231	1330	602	237	101	94	111
3	126	84	116	200	522	269	1040	959	214	112	94	101
4	117	91	109	185	498	287	862	1990	194	203	88	89
5	112	86	102	164	450	255	762	1790	264	148	75	79
6	112	79	99	188	428	240	695	1030	196	95	74	72
7	120	78	100	203	585	225	639	794	212	78	62	66
8	111	78	121	182	670	220	601	672	179	68	56	61
9	102	76	159	164	594	220	578	589	149	69	70	50
10	100	76	230	174	569	255	618	571	136	117	67	40
11	97	75	664	209	542	227	553	517	124	82	57	36
12	95	73	437	276	496	232	522	469	113	171	55	41
13	93	73	876	243	466	346	501	578	111	174	52	49
14	98	73	1170	218	452	335	486	930	118	559	46	50
15	206	71	797	206	413	314	474	624	140	358	38	53
16	138	70	572	198	387	409	444	538	112	212	88	64
17	105	70	513	190	366	---	446	485	99	160	169	77
18	96	71	1040	194	339	---	411	617	93	134	110	83
19	94	70	810	1530	320	4680	408	622	86	130	108	86
20	97	85	607	3820	321	2150	389	540	87	138	79	66
21	90	76	482	1430	361	1770	363	497	97	219	62	131
22	86	77	418	952	313	1300	368	456	75	155	58	735
23	82	71	394	---	292	1100	343	413	71	190	63	485
24	88	73	477	---	280	966	318	373	82	189	56	248
25	110	125	389	6150	285	862	478	334	91	222	57	182
26	129	295	347	2950	268	794	426	304	212	265	57	386
27	98	156	314	1620	266	801	358	409	212	187	148	598
28	90	120	292	1130	241	717	342	437	377	156	218	637
29	88	107	287	904	---	675	351	357	168	138	139	451
30	88	107	268	759	---	1360	300	314	144	128	108	321
31	87	---	234	674	---	3450	---	298	---	150	100	---
TOTAL	3334	2756	12706	25516	11957	24918	17416	19666	4669	5206	2669	5545
MEAN	107.5	91.87	409.9	879.9	427.0	859.2	580.5	634.4	155.6	167.9	86.10	184.8
MAX	206	295	1170	6150	670	4680	2010	1990	377	559	218	735
MIN	82	70	99	164	241	220	300	298	71	68	38	36

03498850 LITTLE RIVER NEAR ALCOA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	177.0	288.6	580.6	877.9	966.9	1059	782.4	532.3	456.1	319.9	222.3	207.5
MAX	779	783	1624	1410	1980	2764	2008	989	1335	782	586	1123
(WY)	1990	1990	1992	1996	1994	1994	1994	1989	1989	1999	1994	1989
MIN	43.4	60.6	176	432	427	403	295	199	73.6	106	69.0	59.8
(WY)	1988	1988	1988	1988	2002	1988	1995	1988	1988	1988	1987	1998

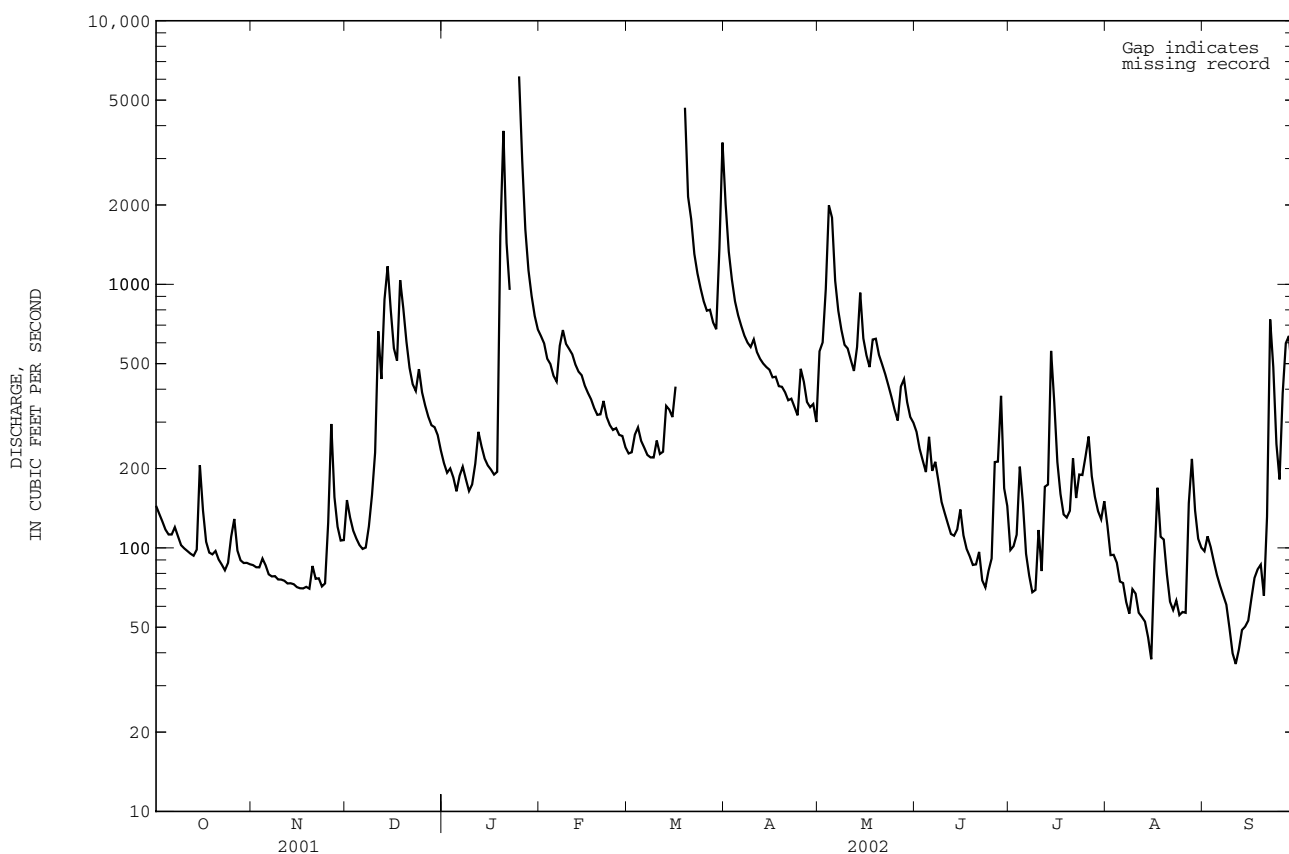
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	143653	136358	
ANNUAL MEAN	393.6	377.7	536.8
HIGHEST ANNUAL MEAN			953
LOWEST ANNUAL MEAN			220
HIGHEST DAILY MEAN	5290	Feb 17	28000
LOWEST DAILY MEAN	70	Nov 16	28
ANNUAL SEVEN-DAY MINIMUM	71	Nov 13	35
MAXIMUM PEAK FLOW			not determined
MAXIMUM PEAK STAGE			25.63
INSTANTANEOUS LOW FLOW			21
10 PERCENT EXCEEDS	721		1060
50 PERCENT EXCEEDS	238		326
90 PERCENT EXCEEDS	94		85



CUMBERLAND RIVER BASIN

03518500 TELlico RIVER AT TELlico PLAINS, TN

LOCATION.--Lat 35°21'42", long 84°16'44", Monroe County, Hydrologic Unit 06010204, on right bank 1,300 ft upstream from birdge on Tellico Plains-Ballplay Road, 0.4 mi downstream from Laurel Creek, 0.8 mi east of Tellico Plains, and at mile 28.2.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--July 1925 to February 1982, December 2000 to current year. Published as "near Tellico Plains" October 1927 to September 1930.

REVISED RECORDS.--WSP 1336: 1927-28(M), 1936, 1940, 1944.

GAGE.--Water-stage recorder. Datum of gage is 846.64 ft NGVD of 1929. July 20, 1925 to Sept. 30, 1927, nonrecording gage at same site and datum. Oct. 1, 1927, to Sept. 30, 1930, nonrecording gage at site 0.5 mi upstream at datum 8.29 ft higher.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR OUTSIDE PERIOD OF RECORD.--Flood in May 1840 reached a stage of 15 ft, discharge, about 21,500 ft³/s, from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT PERIOD.--December 2000 to September 2002: Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25, 2002	0115	*3,740	*7.64	No other peak greater than base discharge.			

Minimum discharge, 38 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR DECEMBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	71	101	214	355	248	149	294	201	218	475
2	---	---	69	86	193	319	232	139	427	152	237	388
3	---	---	73	93	175	307	233	132	296	134	178	284
4	---	---	70	104	165	351	251	124	252	153	209	233
5	---	---	68	87	156	450	230	119	240	287	208	191
6	---	---	66	85	146	392	219	122	206	171	392	165
7	---	---	64	79	139	337	211	154	227	141	216	141
8	---	---	62	123	132	310	199	125	829	130	190	127
9	---	---	61	111	130	294	191	131	617	124	200	117
10	---	---	61	105	278	266	183	178	380	127	176	108
11	---	---	63	124	207	247	176	131	295	112	182	105
12	---	---	69	152	214	263	169	131	246	104	209	100
13	---	---	70	153	206	411	379	126	213	98	225	95
14	---	---	172	143	361	319	357	111	192	92	191	91
15	---	---	132	151	448	529	325	107	182	87	161	86
16	---	---	139	144	808	529	307	103	197	85	143	84
17	---	---	523	129	1830	412	265	99	163	83	130	80
18	---	---	271	346	742	347	239	94	146	80	125	77
19	---	---	204	1820	487	313	219	91	137	84	116	93
20	---	---	146	1010	381	370	203	108	132	119	115	252
21	---	---	146	502	364	390	190	100	127	146	106	126
22	---	---	120	351	482	362	178	113	145	103	99	99
23	---	---	112	286	476	337	170	143	169	90	94	88
24	---	---	136	244	403	313	166	108	125	97	101	239
25	---	---	112	212	746	286	162	595	117	133	138	265
26	---	---	98	185	729	259	150	286	130	149	99	161
27	---	---	95	175	516	239	145	192	122	106	113	130
28	---	---	100	161	421	224	140	218	146	92	123	113
29	---	---	92	153	---	237	135	332	153	321	100	104
30	---	---	85	329	---	279	148	233	297	486	94	96
31	---	---	77	248	---	255	---	189	---	257	230	---
TOTAL	---	---	3627	7992	11549	10302	6420	4983	7202	4544	5118	4713
MEAN	---	---	117.0	257.8	412.5	332.3	214.0	160.7	240.1	146.6	165.1	157.1
MAX	---	---	523	1820	1830	529	379	595	829	486	392	475
MIN	---	---	61	79	130	224	135	91	117	80	94	77
CFSM	---	---	0.99	2.18	3.50	2.82	1.81	1.36	2.03	1.24	1.40	1.33
IN.	---	---	1.14	2.52	3.64	3.25	2.02	1.57	2.27	1.43	1.61	1.49

03518500 TELLICO RIVER AT TELLICO PLAINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	102.6	187.0	306.4	436.3	482.3	525.9	429.5	286.9	208.6	192.0	147.9	107.5
MAX	303	980	973	1033	972	1039	823	933	559	557	459	486
(WY)	1973	1930	1927	1947	1957	1963	1964	1929	1957	1949	1938	1928
MIN	28.4	37.7	60.8	67.7	115	206	161	106	75.0	61.0	28.6	22.4
(WY)	1955	1940	1940	1981	1941	1981	1967	1941	1936	1944	1925	1925

SUMMARY STATISTICS

FOR 2001 WATER YEAR

WATER YEARS 1925 - 2001

ANNUAL TOTAL	66450		
ANNUAL MEAN	218.6	283.6	
HIGHEST ANNUAL MEAN		474	1929
LOWEST ANNUAL MEAN		25.5	1925
HIGHEST DAILY MEAN	1830	Feb 17	9990
LOWEST DAILY MEAN	61	Dec 9	14
ANNUAL SEVEN-DAY MINIMUM	64	Dec 5	15
MAXIMUM PEAK FLOW	3020	Jan 19	a19900
MAXIMUM PEAK STAGE	6.84	Jan 19	b14.18
INSTANTANEOUS LOW FLOW	46	Jan 3	13
ANNUAL RUNOFF (CFSM)	1.85		2.40
ANNUAL RUNOFF (INCHES)	20.95		32.65
10 PERCENT EXCEEDS	389		560
50 PERCENT EXCEEDS	162		188
90 PERCENT EXCEEDS	90		60

a From rating curve extended above 12,000 ft³/s on basis of slope-area measurement of peak flow.
 b From dross line in well.

CUMBERLAND RIVER BASIN

03518500 TELlico RIVER AT TELlico PLAINS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	60	167	149	353	150	699	326	168	138	82	133
2	87	61	128	156	312	167	495	265	158	125	78	81
3	83	60	110	137	287	251	403	431	150	175	73	68
4	79	60	100	127	272	195	339	1420	161	293	67	63
5	77	58	92	144	246	172	307	743	216	153	64	58
6	77	57	88	169	261	167	279	455	273	128	60	54
7	77	55	90	158	375	162	256	353	311	111	57	50
8	71	55	100	134	365	157	240	304	258	117	55	48
9	70	55	163	129	337	163	278	277	187	103	52	46
10	67	55	215	137	317	186	267	282	163	102	51	44
11	66	54	463	172	297	157	239	239	147	151	50	41
12	66	54	263	159	268	213	224	215	137	108	49	40
13	76	54	502	147	249	241	221	381	133	157	47	40
14	161	53	741	138	232	217	209	446	143	247	45	46
15	115	53	489	136	219	201	200	319	151	152	45	55
16	81	53	327	128	212	212	190	273	126	125	165	55
17	73	52	413	126	200	264	186	244	119	109	85	48
18	72	52	668	134	190	355	176	531	111	100	97	71
19	71	51	421	1280	182	362	170	391	134	94	115	99
20	70	54	318	1120	205	340	165	326	185	91	79	55
21	69	53	260	593	200	375	158	290	125	88	64	643
22	68	51	225	446	178	318	165	258	109	89	58	803
23	66	52	239	1420	170	284	152	235	104	137	58	293
24	66	71	325	2020	165	257	146	215	105	131	55	182
25	76	301	250	2400	160	235	201	199	129	96	64	180
26	71	136	226	995	175	273	163	186	130	121	62	408
27	63	97	205	671	163	340	151	249	118	96	60	512
28	62	85	191	519	151	285	147	271	138	92	116	427
29	62	78	179	436	---	266	154	212	123	101	85	290
30	62	238	163	377	---	1030	137	190	135	111	107	215
31	61	---	154	337	---	1170	---	184	---	94	79	---
TOTAL	2356	2268	8275	15194	6741	9165	7117	10710	4647	3935	2224	5148
MEAN	76.00	75.60	266.9	490.1	240.8	295.6	237.2	345.5	154.9	126.9	71.74	171.6
MAX	161	301	741	2400	375	1170	699	1420	311	293	165	803
MIN	61	51	88	126	151	150	137	184	104	88	45	40
CFSM	0.64	0.64	2.26	4.15	2.04	2.51	2.01	2.93	1.31	1.08	0.61	1.45
IN.	0.74	0.71	2.61	4.79	2.13	2.89	2.24	3.38	1.46	1.24	0.70	1.62

03518500 TELLICO RIVER AT TELLICO PLAINS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	102.2	185.1	305.8	437.2	478.2	522.0	426.2	287.9	207.7	190.9	146.7	108.6
MAX	303	980	973	1033	972	1039	823	933	559	557	459	486
(WY)	1973	1930	1927	1947	1957	1963	1964	1929	1957	1949	1938	1928
MIN	28.4	37.7	60.8	67.7	115	206	161	106	75.0	61.0	28.6	22.4
(WY)	1955	1940	1940	1981	1941	1981	1967	1941	1936	1944	1925	1925

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

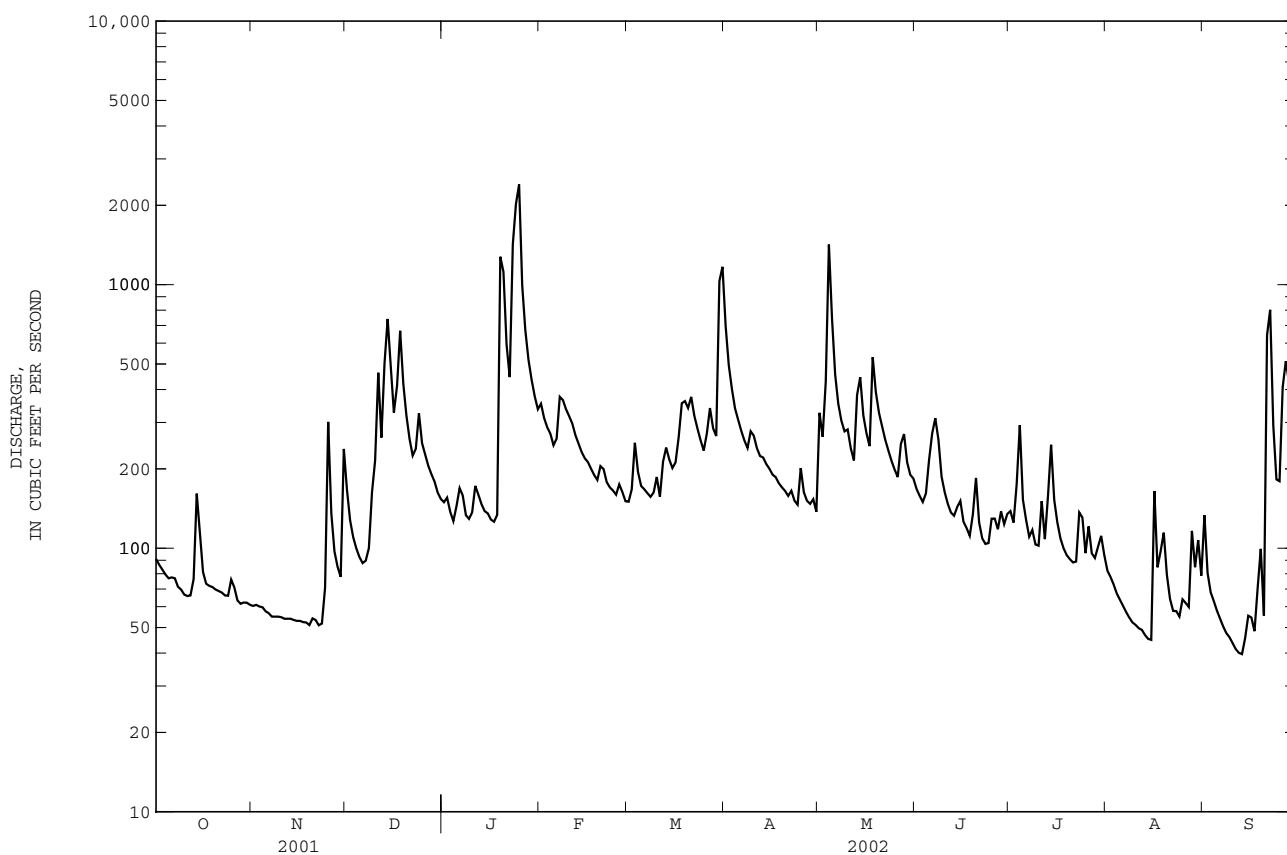
FOR 2002 WATER YEAR

WATER YEARS 1925 - 2002

ANNUAL TOTAL	75722	77780	
ANNUAL MEAN	207.5	213.1	282.4
HIGHEST ANNUAL MEAN			474
LOWEST ANNUAL MEAN			25.5
HIGHEST DAILY MEAN	1830	Feb 17	2400
LOWEST DAILY MEAN	51	Nov 19	40
ANNUAL SEVEN-DAY MINIMUM	52	Nov 17	44
MAXIMUM PEAK FLOW			3740
MAXIMUM PEAK STAGE			7.64
INSTANTANEOUS LOW FLOW			38
ANNUAL RUNOFF (CFSM)	1.76		1.81
ANNUAL RUNOFF (INCHES)	23.87		24.52
10 PERCENT EXCEEDS	389		379
50 PERCENT EXCEEDS	153		154
90 PERCENT EXCEEDS	70		55

a From rating curve extended above 12,000 ft³/s on basis of slope-area measurement of peak flow.

b From cross line in well.



TENNESSEE RIVER BASIN

03528000 CLINCH RIVER ABOVE TAZEWEILL, TN

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, Hydrologic Unit 06010205, on right bank 0.4 mi upstream from Grissom Island, 4.6 mi downstream from Big War Creek, 10 mi east of Tazewell, and at mile 159.8.

DRAINAGE AREA.--1,474 mi².

PERIOD OF RECORD.--October 1918 to current year. Published as "near Lone Mountain" October 1918 to September 1927; as "near Tazewell" August 1927 to December 1936; and as "above Tazewell" July 1935 to current year. Prior to April 1919, monthly discharge only, published in WSP 1306. Gage-height record "near Tazewell" January 1937 to July 1941.

REVISED RECORDS.--WSP 803: Drainage area at site "near Tazewell". WSP 1306: Drainage area at site "near Lone Mountain". WSP 1336: 1928.

GAGE.--Data collection platform. Datum of gage is 1,060.7 ft above NGVD of 1929. April 1, 1919, to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi downstream at datum 102.7 ft lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi downstream at datum 47.2 ft lower. Water-stage recorder at present site and datum since July 29, 1935.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1862 reached a stage of about 24 ft, present site and datum, from information by local resident, discharge, about 66,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0600	22,400	12.63	Mar 19	0800	*54,800	*21.37

Minimum discharge, 115 ft³/s, Sept. 13, 14, 16, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	230	254	333	1770	592	8380	1320	623	536	401	225
2	304	224	248	349	1550	580	8470	1660	584	506	349	214
3	291	225	243	298	1360	600	5890	3530	564	445	331	201
4	282	221	242	302	1210	652	4240	6610	544	582	304	182
5	270	222	235	300	1090	702	3300	5660	549	724	270	170
6	277	221	226	301	1010	687	2720	3460	541	532	256	160
7	266	222	228	319	1080	671	2320	2620	523	542	234	152
8	264	222	235	332	1410	636	2040	2370	551	475	218	145
9	293	223	253	318	1870	621	1970	2160	658	390	223	139
10	296	220	321	329	1810	612	2370	2010	646	349	211	133
11	284	217	645	355	1640	599	2660	1770	543	335	194	130
12	270	217	737	503	1480	595	2260	1530	468	313	184	124
13	263	214	885	1080	1340	586	1960	1510	429	542	175	118
14	270	211	1120	1140	1220	596	1760	1890	462	573	168	116
15	281	214	1280	946	1100	615	1620	2060	505	535	164	121
16	284	208	1110	776	1020	733	1570	1780	523	536	167	115
17	271	204	904	666	962	3980	1500	1470	571	491	193	116
18	275	203	878	611	906	31500	1360	1350	497	410	190	121
19	265	203	879	1280	856	51200	1480	1420	431	386	222	119
20	277	201	826	3040	822	27700	1630	1490	385	431	245	122
21	280	199	744	3430	814	9430	1470	1290	353	592	246	158
22	261	197	653	2700	799	6580	1440	1120	329	567	253	192
23	252	195	589	4410	770	5040	1320	1010	309	654	232	247
24	246	201	546	14400	726	4030	1200	921	301	589	208	241
25	252	230	514	22000	693	3200	1210	849	289	574	187	203
26	244	243	484	17100	665	2740	1220	788	291	477	219	419
27	248	243	454	8560	642	2650	1350	747	299	746	273	961
28	247	237	433	4670	619	2760	1410	861	376	791	356	970
29	241	236	409	3300	---	2470	1410	832	402	582	348	736
30	236	250	384	2560	---	2300	1350	725	421	460	301	593
31	233	---	355	2080	---	3510	---	682	---	433	253	---
TOTAL	8351	6553	17314	98788	31234	169167	72880	57495	13967	16098	7575	7643
MEAN	269.4	218.4	558.5	3187	1116	5457	2429	1855	465.6	519.3	244.4	254.8
MAX	328	250	1280	22000	1870	51200	8470	6610	658	791	401	970
MIN	233	195	226	298	619	580	1200	682	289	313	164	115
MED	270	220	484	946	1050	733	1620	1490	482	535	232	159
CF5M	0.18	0.15	0.38	2.16	0.76	3.70	1.65	1.26	0.32	0.35	0.17	0.17
IN.	0.21	0.17	0.44	2.49	0.79	4.27	1.84	1.45	0.35	0.41	0.19	0.19

03528000 CLINCH RIVER ABOVE TAZEWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	642.5	1076	2280	3420	4065	4277	3075	2283	1271	966.9	858.9	523.4
MAX	2871	4794	9107	9500	9426	11950	8860	6382	3865	3251	4411	2939
(WY)	1990	1978	1927	1937	1957	1963	1977	1929	1989	1938	1942	1989
MIN	145	159	217	285	572	990	711	547	301	239	169	136
(WY)	1964	1940	1940	1940	1941	1988	1986	1941	1988	1988	1925	1955

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

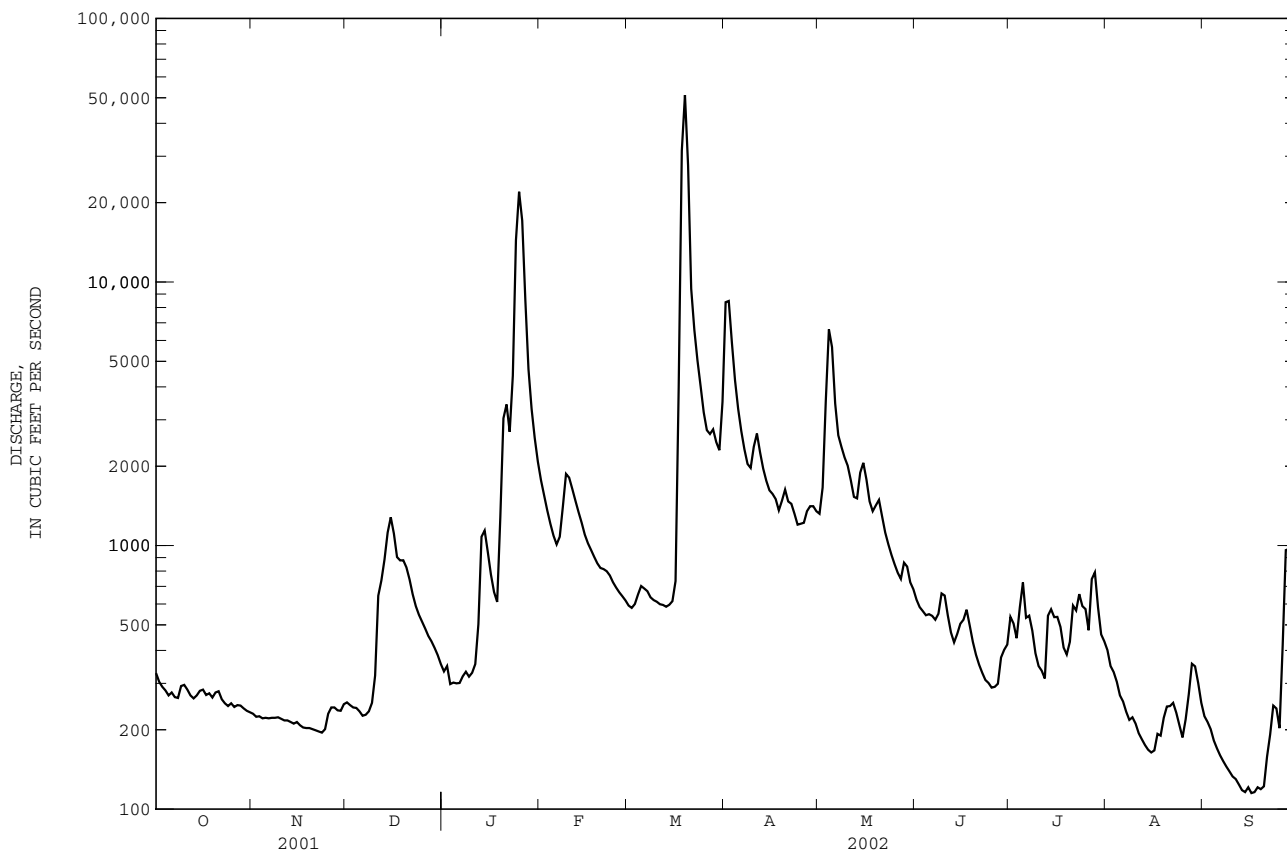
FOR 2002 WATER YEAR

WATER YEARS 1919 - 2002

ANNUAL TOTAL	500492	507065	
ANNUAL MEAN	1371	1389	
HIGHEST ANNUAL MEAN			2049
LOWEST ANNUAL MEAN			3269
HIGHEST DAILY MEAN			850
LOWEST DAILY MEAN	21100	Jul 30	51200
ANNUAL SEVEN-DAY MINIMUM	195	Nov 23	115
MAXIMUM PEAK FLOW	200	Nov 18	118
MAXIMUM PEAK STAGE			54800
INSTANTANEOUS LOW FLOW			21.37
ANNUAL RUNOFF (CFSM)	0.93		0.94
ANNUAL RUNOFF (INCHES)	12.63		12.80
10 PERCENT EXCEEDS	3150		4600
50 PERCENT EXCEEDS	675		1090
90 PERCENT EXCEEDS	243		264

a From floodmarks.

b Also occurred on Sept. 14, 16, 17.



TENNESSEE RIVER BASIN

03532000 POWELL RIVER NEAR ARTHUR, TN

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, Hydrologic Unit 06010206, on left bank, 500 ft upstream from bridge on U.S. Highway 25E, 2.3 mi east of Arthur, 2.4 mi downstream from Indian Creek, and at mile 65.4.

DRAINAGE AREA.--685 mi².

PERIOD OF RECORD.--October 1919 to February 1982, October 1996 to current year. Gage-height records collected at same site December 1892 to August 1893, September 1904 to March 1925 are in reports of U.S. Weather Bureau (published as "near Tazewell").

REVISED RECORDS.--WSP 1336: 1920, 1921(M), 1923.

GAGE.--Water-stage recorder. Datum of gage is 1,043.84 ft above NGVD of 1929, Tennessee River Survey datum. Prior to July 23, 1927, nonrecording gage, and July 23, 1927, to Sept. 30, 1970, water-stage recorder, at same site at datum 2.00 ft higher.

REMARKS.--Records good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1826 reached a stage of 29.5 ft present datum, discharge, 34,000 ft³/s, and flood of Jan. 29, 1918, reached a stage of 29.2 ft present datum, discharge, 33,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0545	13,400	17.31	Mar 19	2145	*28,700	*27.01

Minimum discharge, 61 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	152	198	314	1210	476	5520	805	448	233	208	125
2	222	152	202	264	1080	463	5980	749	411	203	193	110
3	210	151	193	290	998	464	3640	1640	389	190	176	105
4	198	147	198	284	900	472	2590	2340	363	196	162	98
5	187	143	187	250	826	531	2000	1800	349	252	150	90
6	191	143	168	273	776	509	1660	1380	333	310	143	84
7	189	140	162	288	862	479	1440	1120	330	248	142	80
8	186	139	173	279	1220	472	1270	1350	334	201	134	76
9	246	138	288	254	1620	465	1240	1270	344	176	125	72
10	232	135	434	265	1410	462	2480	1070	308	256	118	69
11	199	133	783	314	1230	452	3110	935	276	278	113	66
12	183	131	722	435	1110	462	2310	812	259	178	112	64
13	173	130	817	798	1010	447	1840	784	250	201	112	62
14	201	129	1100	811	921	440	1560	1030	278	293	108	67
15	241	128	1560	684	846	442	1370	1540	270	248	107	74
16	225	128	1260	586	788	461	1220	1220	253	239	108	76
17	250	127	941	522	747	1830	1090	977	249	230	155	79
18	269	126	838	485	706	12900	984	883	229	197	215	75
19	214	125	891	913	668	24400	1040	1160	217	172	325	72
20	189	128	940	2280	639	17400	1140	1340	209	166	392	71
21	179	139	796	2800	625	4890	991	1010	196	190	361	93
22	173	124	664	1850	621	3790	900	852	186	232	205	127
23	168	125	579	2830	608	2880	837	754	191	231	165	362
24	164	131	552	8120	571	2270	777	680	183	223	133	232
25	173	189	536	12500	541	1890	781	623	174	309	116	187
26	173	203	540	10400	526	1660	793	575	173	410	116	301
27	168	190	480	4760	510	1920	818	533	183	491	153	905
28	166	181	438	2880	491	2270	739	527	275	434	229	1150
29	173	191	408	2090	---	1880	711	756	283	321	232	719
30	171	200	378	1660	---	1680	779	582	252	256	192	429
31	156	---	350	1390	---	2290	---	507	---	231	153	---
TOTAL	6111	4398	17776	61869	24060	91447	51610	31604	8195	7795	5353	6120
MEAN	197.1	146.6	573.4	1996	859.3	2950	1720	1019	273.2	251.5	172.7	204.0
MAX	269	203	1560	12500	1620	24400	5980	2340	448	491	392	1150
MIN	156	124	162	250	491	440	711	507	173	166	107	62
CFSM	0.29	0.21	0.84	2.91	1.25	4.31	2.51	1.49	0.40	0.37	0.25	0.30
IN.	0.33	0.24	0.97	3.36	1.31	4.97	2.80	1.72	0.45	0.42	0.29	0.33

03532000 POWELL RIVER NEAR ARTHUR, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	315.2	649.9	1306	1982	2159	2386	1719	1133	663.8	549.4	450.7	248.3
MAX	1648	3045	5557	5812	4887	6596	5224	4220	2495	1917	2030	1081
(WY)	1978	1974	1927	1937	1956	1963	1977	1929	1928	1941	1942	1928
MIN	75.5	96.4	117	143	268	887	477	268	168	137	117	79.7
(WY)	1955	1940	1966	1940	1941	1931	1942	1941	1936	1944	1925	1955

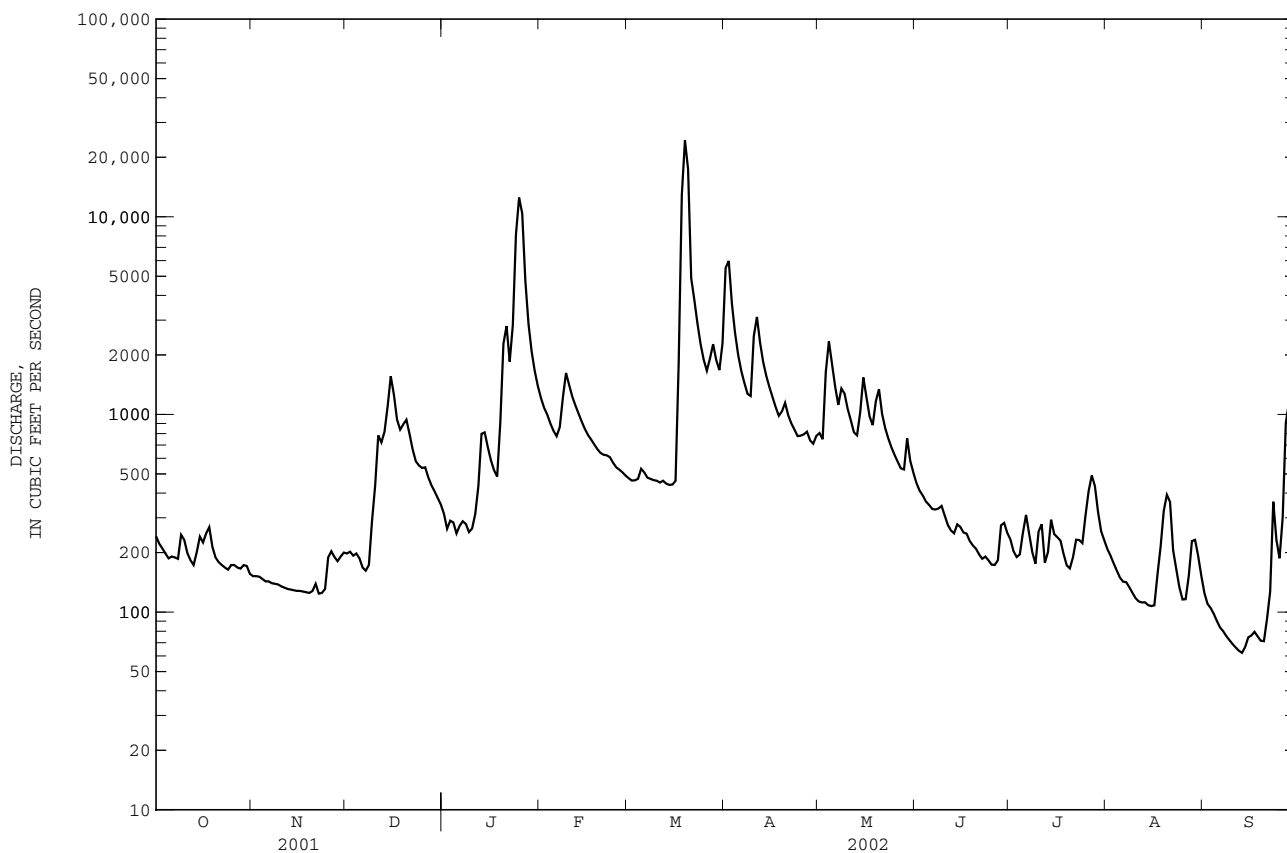
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1920 - 2002

ANNUAL TOTAL	249302	316338	
ANNUAL MEAN	683.0	866.7	1126
HIGHEST ANNUAL MEAN			1858
LOWEST ANNUAL MEAN			486
HIGHEST DAILY MEAN	8380	Feb 17	24400
LOWEST DAILY MEAN	124	Nov 22	62
ANNUAL SEVEN-DAY MINIMUM	127	Nov 14	68
MAXIMUM PEAK FLOW			28700
MAXIMUM PEAK STAGE			27.01
INSTANTANEOUS LOW FLOW			61
ANNUAL RUNOFF (CFSM)	1.00	1.27	1.64
ANNUAL RUNOFF (INCHES)	13.54	17.18	22.33
10 PERCENT EXCEEDS	1520	1660	2510
50 PERCENT EXCEEDS	394	321	576
90 PERCENT EXCEEDS	152	127	136



TENNESSEE RIVER BASIN

03535400 BEAVER CREEK AT SOLWAY, TN

LOCATION.--Lat 35°57'51", long 84°01'41", Knox County, Hydrologic Unit 06010207, at bridge on Solway Road, 1.1 mi southwest of Solway and 5.9 mi southeast of intersection of State Highways 95 and 62 in Oak Ridge.

DRAINAGE AREA.--86.8 mi².

PERIOD OF RECORD.--August 1961 to September 1964, low-flow partial-record site, August 1998 to April 1999, flood crest-stage partial-record site, April 1999 to September 2000.

GAGE.--Data logger.

REMARKS.--Records good except of period of estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 24	2245	2,560	12.08	Mar 19	0745	*3,530	*14.01
Jan 25	0845	2,210	11.28	Mar 19	1900	2,470	11.88

Minimum discharge, 17 ft³/s, Nov. 8, 9, 11, 21, 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	28	37	43	208	59	642	161	57	34	76	21
2	29	27	32	41	203	59	537	251	54	32	36	21
3	29	28	29	41	167	65	331	507	52	37	30	21
4	27	26	26	39	153	63	258	380	50	83	27	21
5	26	25	24	38	134	58	219	261	48	43	26	21
6	27	22	23	40	130	54	193	202	48	32	26	21
7	26	19	29	44	215	51	174	172	55	29	24	21
8	28	19	39	45	266	50	160	173	51	28	23	21
9	25	19	45	42	212	54	185	142	46	26	23	25
10	24	20	76	42	176	64	194	136	45	25	23	21
11	29	21	214	45	161	57	163	142	42	28	23	20
12	26	20	130	47	144	60	150	121	40	33	22	20
13	24	20	159	46	130	72	143	177	40	227	23	19
14	27	21	296	46	119	71	138	307	42	354	21	21
15	35	21	216	44	110	66	132	189	39	126	21	23
16	32	22	131	40	100	74	128	143	38	68	20	26
17	29	21	124	40	90	931	121	125	37	53	27	28
18	27	21	175	42	85	e3300	114	143	38	47	26	24
19	29	21	143	490	81	e3200	111	134	37	42	27	22
20	29	21	108	1010	82	1170	102	110	34	41	41	22
21	27	19	83	635	86	631	96	99	33	45	35	355
22	27	19	75	214	79	429	88	90	32	39	28	549
23	27	20	74	1200	72	316	90	84	32	35	25	569
24	27	21	89	2180	69	265	84	81	32	36	21	163
25	30	47	78	2120	65	231	146	77	33	37	22	79
26	43	45	67	1510	67	213	134	74	32	33	25	160
27	33	34	60	667	66	200	93	72	33	30	23	264
28	28	29	55	420	62	175	85	70	34	30	25	186
29	27	27	51	310	---	160	80	68	33	30	44	115
30	28	32	48	251	---	230	76	64	36	28	30	85
31	29	---	45	212	---	504	---	61	---	32	25	---
TOTAL	884	735	2781	11984	3532	12932	5167	4816	1223	1763	868	2964
MEAN	28.52	24.50	89.71	386.6	126.1	417.2	172.2	155.4	40.77	56.87	28.00	98.80
MAX	43	47	296	2180	266	3300	642	507	57	354	76	569
MIN	24	19	23	38	62	50	76	61	32	25	20	19
CFSM	0.33	0.28	1.03	4.45	1.45	4.81	1.98	1.79	0.47	0.66	0.32	1.14
IN.	0.38	0.32	1.19	5.14	1.51	5.54	2.21	2.06	0.52	0.76	0.37	1.27

e Estimated

03535400 BEAVER CREEK AT SOLWAY, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.88	32.56	58.73	199.1	208.4	231.5	149.9	124.3	79.79	97.39	34.98	52.04
MAX	28.5	37.2	89.7	387	367	417	245	168	154	227	43.6	98.8
(WY)	2000	2001	2002	2002	2001	2002	2000	1999	1999	1999	2001	2002
MIN	20.6	24.5	34.9	98.1	126	113	84.4	43.5	40.1	37.8	27.0	25.6
(WY)	2001	2002	2000	2000	2002	2001	2001	2001	2001	2000	2000	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

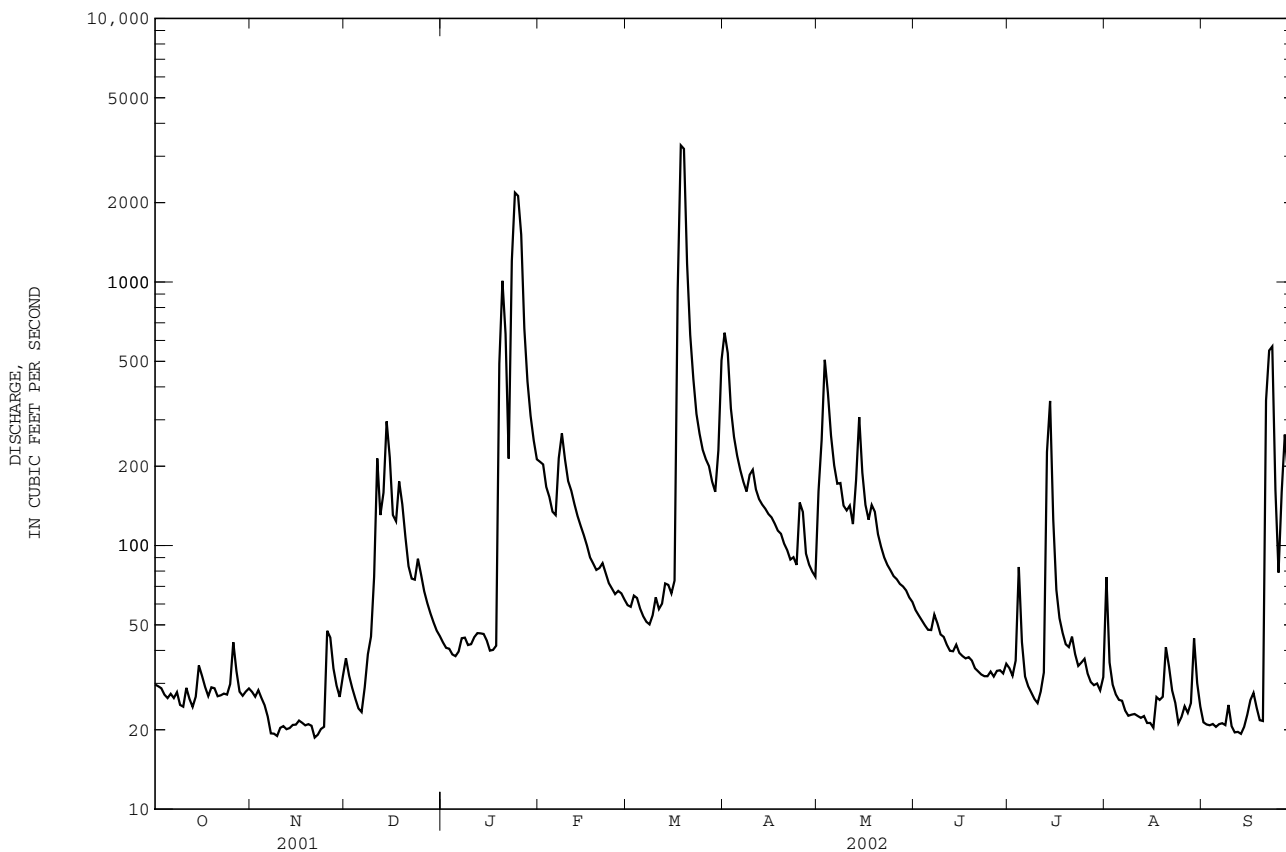
FOR 2002 WATER YEAR

WATER YEARS 1998 - 2002

ANNUAL TOTAL	31891	49649	
ANNUAL MEAN	87.37	136.0	104.9
HIGHEST ANNUAL MEAN			136
LOWEST ANNUAL MEAN			84.5
HIGHEST DAILY MEAN	1950	Feb 17	3300
LOWEST DAILY MEAN	19	Nov 7	19
ANNUAL SEVEN-DAY MINIMUM	20	Nov 7	20
MAXIMUM PEAK FLOW			3530
MAXIMUM PEAK STAGE			14.01
INSTANTANEOUS LOW FLOW			a17
ANNUAL RUNOFF (CFSM)	1.01	1.57	1.21
ANNUAL RUNOFF (INCHES)	13.67	21.28	16.42
10 PERCENT EXCEEDS	156	239	191
50 PERCENT EXCEEDS	43	46	45
90 PERCENT EXCEEDS	26	22	24

a Also occurred Nov. 9, 11, 21, 22.

b Also occurred Oct. 18, 19, 2000.



03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN

LOCATION.--Lat 35°59'48", long 84°14'25", Anderson County, Hydrologic Unit 06010207, on left bank upstream from bridge on Bear Creek Road, 0.5 mi south of Oak Ridge, and at mile 14.4.

DRAINAGE AREA.--1.69 mi².

PERIOD OF RECORD.--December 1992 to current year.

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 890 ft above NGVD of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good below 100 ft³/s. Flow affected by operations of the Department of Energy, Y-12 Plant. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 708 ft³/s, gage height, 5.22 ft, Sept. 21; minimum, 3.5 ft³/s, gage height, 1.22 ft, Oct. 9, 10; minimum daily, 3.7 ft³/s, Oct. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	11	11	15	11	15	26	11	13	11	10
2	10	11	11	12	12	12	15	38	11	13	10	10
3	10	11	11	12	12	12	14	19	11	15	10	10
4	10	11	11	12	12	12	11	19	11	14	10	10
5	11	11	11	12	12	12	13	14	11	13	10	10
6	12	11	11	13	15	12	12	13	12	13	10	10
7	11	9.3	15	12	19	12	12	16	12	13	10	10
8	7.6	10	14	12	13	12	12	14	12	13	10	10
9	3.7	10	12	12	12	13	14	14	12	13	10	10
10	5.6	11	24	12	12	11	12	15	12	14	10	10
11	9.6	11	14	12	12	11	9.2	12	12	18	10	10
12	10	11	13	12	12	14	10	12	12	19	10	10
13	11	11	27	12	11	13	11	30	12	45	10	10
14	11	11	26	11	11	12	11	14	11	15	10	19
15	12	11	13	12	12	12	11	12	10	13	10	12
16	14	11	12	11	12	13	11	12	10	11	10	10
17	14	11	21	10	12	89	11	12	9.9	11	10	10
18	14	11	14	13	12	126	12	13	9.8	11	10	10
19	14	10	12	52	12	20	12	11	9.9	17	21	10
20	13	9.7	12	16	14	17	12	11	10	18	11	10
21	13	10	12	15	12	14	12	11	10	12	10	83
22	13	11	12	14	11	14	9.7	11	10	11	10	47
23	13	12	15	128	11	13	7.8	11	10	11	10	14
24	14	14	12	61	11	13	13	11	11	11	10	12
25	18	21	12	26	11	13	22	11	13	11	15	12
26	14	11	12	17	12	14	12	11	13	11	11	26
27	14	9.9	11	15	11	13	11	11	14	10	12	16
28	14	11	12	14	11	12	11	11	14	11	11	12
29	13	11	12	13	---	12	11	12	14	11	11	11
30	12	15	12	13	---	38	11	12	13	13	11	11
31	10	---	12	12	---	29	---	12	---	11	10	---
TOTAL	362.5	338.9	429	609	344	631	360.7	451	343.6	435	334	455
MEAN	11.69	11.30	13.84	19.65	12.29	20.35	12.02	14.55	11.45	14.03	10.77	15.17
MAX	18	21	27	128	19	126	22	38	14	45	21	83
MIN	3.7	9.3	11	10	11	11	7.8	11	9.8	10	10	10

03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	9.400	10.47	11.11	13.15	12.78	13.44	12.80	11.48	11.73	12.51	10.55	10.53
MAX	11.9	14.5	15.0	19.6	18.1	20.4	23.8	15.9	17.5	20.8	15.5	15.2
(WY)	1998	1997	1999	2002	1994	2002	1998	2000	1998	1999	1996	2002
MIN	5.47	6.47	5.82	7.56	7.42	7.37	4.87	6.04	4.53	4.14	5.03	5.28
(WY)	1995	1995	1995	1993	1995	1995	1995	1994	1995	1995	1995	1995

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

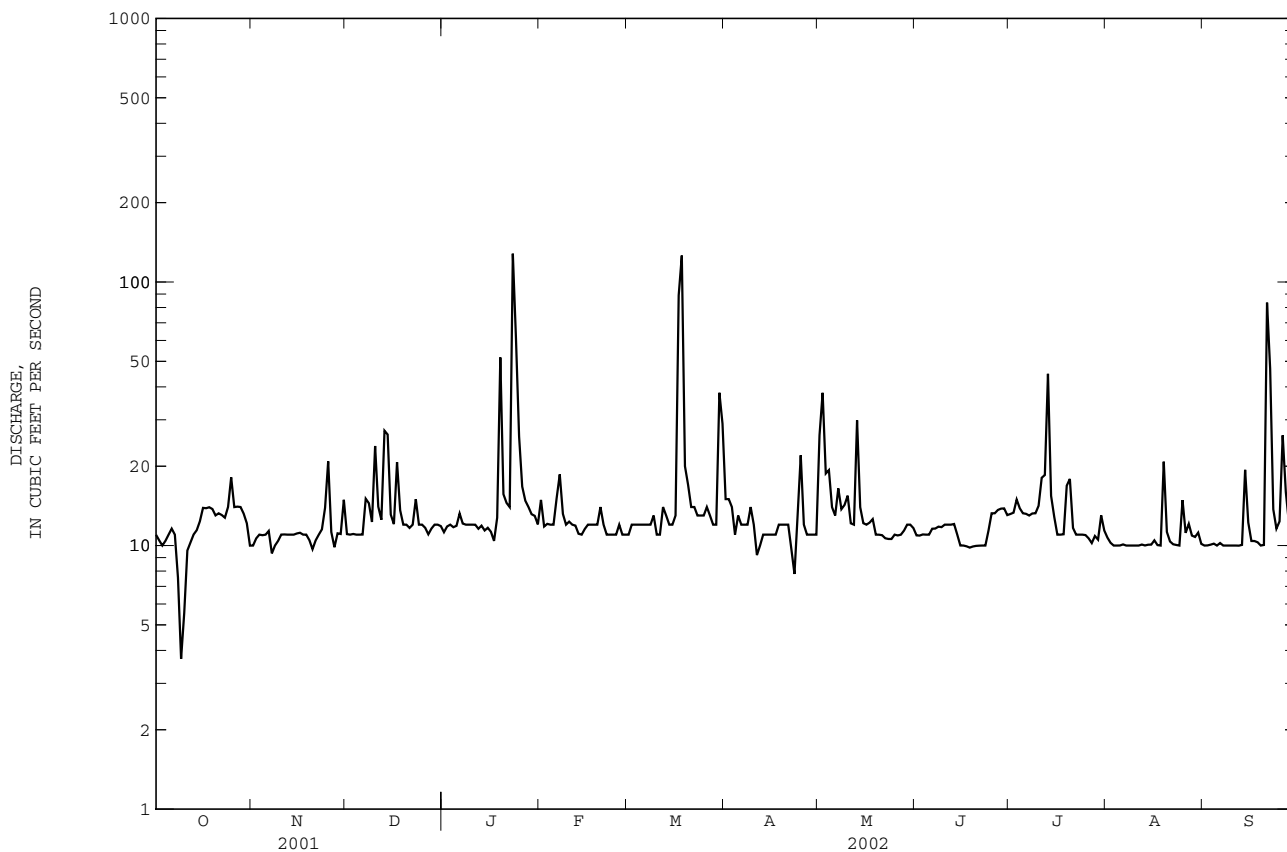
WATER YEARS 1993 - 2002

ANNUAL TOTAL	4723.0			5093.7			11.69		
ANNUAL MEAN	12.94			13.96			14.1		
HIGHEST ANNUAL MEAN							6.30		
LOWEST ANNUAL MEAN							163		
HIGHEST DAILY MEAN	99			Feb 16			Dec 4 1993		
LOWEST DAILY MEAN	3.7			Oct 9			3.3		
ANNUAL SEVEN-DAY MINIMUM	8.4			Oct 7			3.6		
MAXIMUM PEAK FLOW				708			a2000		
MAXIMUM PEAK STAGE				5.22			b14.36		
INSTANTANEOUS LOW FLOW				c3.5			1.7		
10 PERCENT EXCEEDS	15			16			16		
50 PERCENT EXCEEDS	11			12			11		
90 PERCENT EXCEEDS	10			10			4.9		

a From area-velocity estimated at contracted section downstream.

b Affected by backwater. From high-water marks.

c Also occurred on Oct. 10.



TENNESSEE RIVER BASIN

03539600 DADDYS CREEK NEAR HEBBERTSBURG, TN

LOCATION.--Lat 35°59'53", long 84°49'24", Cumberland County, Hydrologic Unit 06010208, on right bank, 200 ft downstream of Antioch Bridge, 2.1 mi southeast of Hebbertsburg, 6.9 mi northeast of Crab Orchard, and at mile 9.1.

DRAINAGE AREA.--139 mi².

PERIOD OF RECORD.--October 1956 to September 1968, April 1999 to current year. Prior to May 1957 monthly discharge only, published in WSP 1726.

GAGE.--Data collection platform. Datum of gage is 1,445 ft above NGVD of 1929, from topographic map, datum of 1929, supplementary adjustment of 1936. Prior to May 24, 1965, graphic water-stage recorder at same site and datum of 1929.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,000 ft³/s, Jan. 23, gage height, 12.49 ft; minimum discharge, 0.15 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	11	244	87	344	89	2640	1440	27	3.9	4.8	1.2
2	6.3	11	205	81	407	86	1110	1640	24	3.5	4.3	0.87
3	5.8	10	137	75	345	95	657	3240	21	3.5	4.0	0.72
4	5.5	8.5	73	62	306	97	467	1750	18	3.5	3.6	0.64
5	5.3	7.8	58	61	253	92	355	1310	17	4.2	3.2	0.67
6	5.7	7.3	48	65	231	84	303	755	27	4.7	2.9	0.65
7	6.0	7.3	47	68	406	80	250	507	21	4.0	2.6	0.67
8	5.7	7.3	64	60	514	76	205	388	18	4.2	2.3	0.59
9	4.9	7.7	105	60	430	80	190	302	17	4.8	2.1	0.49
10	4.9	8.4	142	64	357	106	196	248	14	4.8	1.9	0.39
11	5.6	7.4	241	108	341	119	172	266	11	6.5	2.1	0.28
12	7.6	7.0	250	138	301	120	150	205	9.8	14	2.1	0.21
13	9.3	6.8	280	134	255	163	141	231	8.2	14	2.0	0.17
14	12	6.5	1410	123	216	188	132	411	7.9	35	1.8	0.23
15	14	6.5	1100	113	187	172	122	322	7.1	32	1.8	0.92
16	10	6.5	521	100	165	165	109	232	6.4	20	1.8	1.4
17	7.9	6.9	340	92	146	2970	98	177	6.2	14	1.8	1.7
18	10	7.5	393	95	129	8950	92	174	5.8	11	1.8	1.4
19	10	7.4	355	1130	118	2700	88	162	5.4	9.9	1.7	1.2
20	9.7	9.5	268	1880	122	1100	83	127	5.3	7.8	1.5	1.2
21	9.4	89	204	914	146	753	75	104	5.5	8.9	1.3	3.0
22	9.4	88	164	561	140	511	70	87	5.4	11	1.1	9.7
23	9.1	62	189	6960	127	395	62	74	4.7	7.7	1.1	11
24	9.2	27	365	7870	116	321	60	62	4.0	6.8	0.93	7.3
25	12	445	310	4540	105	266	1060	52	3.7	6.0	0.85	5.3
26	12	303	240	1570	103	242	671	46	3.7	9.2	0.80	12
27	11	132	191	880	104	247	417	49	3.9	11	0.77	93
28	12	85	157	618	99	212	318	45	4.6	8.6	0.78	93
29	12	62	135	420	---	179	261	40	5.2	6.9	0.91	55
30	12	181	116	333	---	245	207	35	4.5	6.0	1.4	34
31	12	---	100	281	---	2190	---	30	---	5.3	1.5	---
TOTAL	272.9	1632.3	8452	29543	6513	23093	10761	14511	322.3	292.7	61.54	338.90
MEAN	8.803	54.41	272.6	953.0	232.6	744.9	358.7	468.1	10.74	9.442	1.985	11.30
MAX	14	445	1410	7870	514	8950	2640	3240	27	35	4.8	93
MIN	4.9	6.5	47	60	99	76	60	30	3.7	3.5	0.77	0.17
CFSM	0.06	0.39	1.96	6.86	1.67	5.36	2.58	3.37	0.08	0.07	0.01	0.08
IN.	0.07	0.44	2.26	7.91	1.74	6.18	2.88	3.88	0.09	0.08	0.02	0.09

03539600 DADDYS CREEK NEAR HEBBERTSBURG, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51.86	213.5	359.8	427.2	461.5	619.5	426.7	242.1	86.93	110.1	44.80	34.70
MAX	220	1271	860	953	887	1011	812	512	457	587	140	209
(WY)	1958	1958	1968	2002	1962	1963	1962	1958	1961	1967	1959	1960
MIN	0.52	2.44	12.5	188	99.2	251	94.1	27.2	10.7	9.44	1.66	0.62
(WY)	1964	1964	1964	2000	1968	2001	1963	1962	2002	2002	1957	1968

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

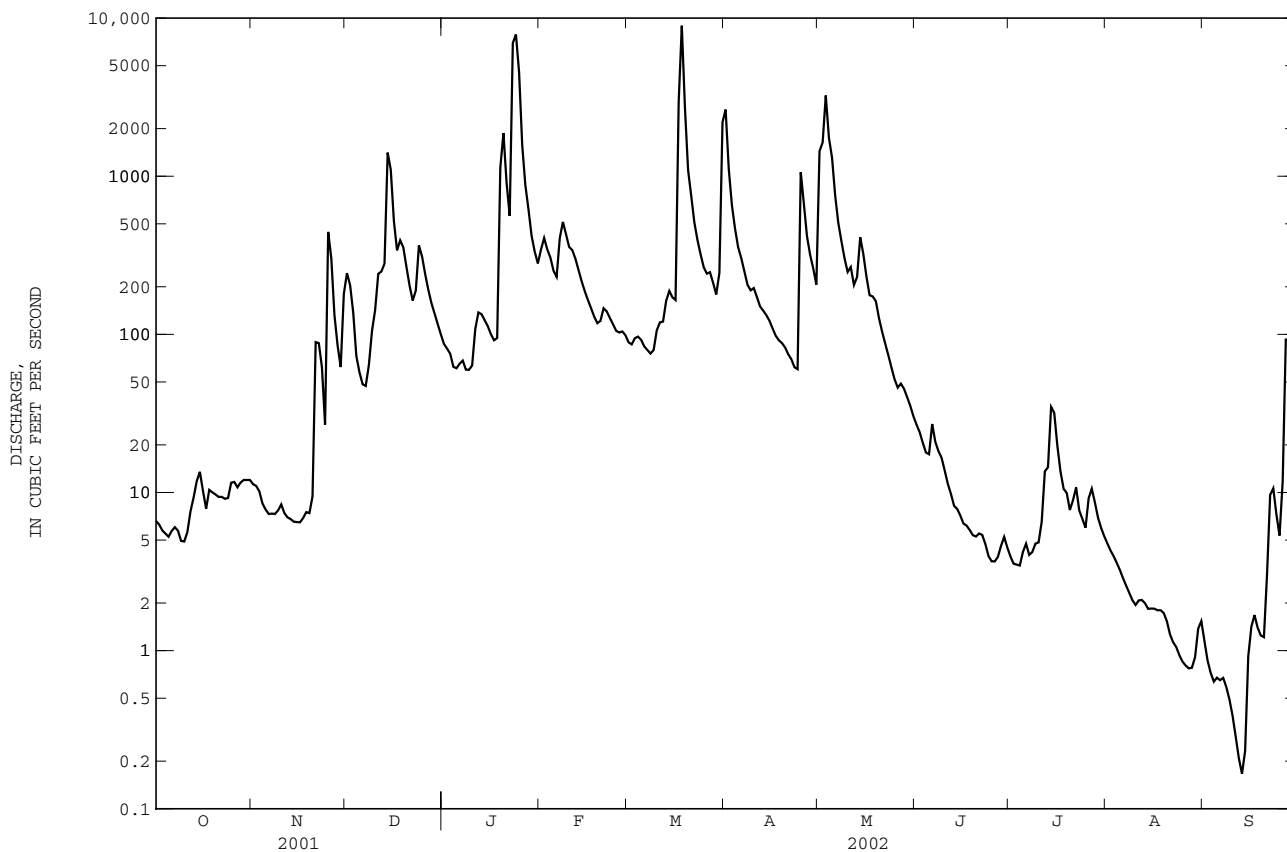
FOR 2002 WATER YEAR

WATER YEARS 1957 - 2002

ANNUAL TOTAL	63063.8			95793.64			247.2		
ANNUAL MEAN	172.8			262.4			115		
HIGHEST ANNUAL MEAN							368		
LOWEST ANNUAL MEAN							115		
HIGHEST DAILY MEAN	4300			Feb 17			8950		
LOWEST DAILY MEAN	2.8			Sep 18			0.17		
ANNUAL SEVEN-DAY MINIMUM	3.3			Sep 13			0.34		
MAXIMUM PEAK FLOW							a13000		
MAXIMUM PEAK STAGE							a12.49		
INSTANTANEOUS LOW FLOW							c0.15		
ANNUAL RUNOFF (CFSM)	1.24						1.89		
ANNUAL RUNOFF (INCHES)	16.88						25.64		
10 PERCENT EXCEEDS	386						424		
50 PERCENT EXCEEDS	45						60		
90 PERCENT EXCEEDS	6.5						1.8		

a From rating curve extended above 8,000 ft³/s, at site and datum presently in use.b From rating curve extended above 6,600 ft³/s, at site and datum then in use.

c Also occurred Sept. 14.



03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN

LOCATION.--Lat 36°06'11", long 84°43'06", Morgan County, Hydrologic Unit 06010208, on right bank 200 yards upstream of Lilly Bridge, 0.1 mi downstream of Little Clear Creek, 3.8 mi west-southwest of Lancing, and at mile 1.6.

DRAINAGE AREA.--170 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1997 to current year.

GAGE.--Data collection platform. Datum of gage is 1,040 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except during periods of missing record, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREME FOR CURRENT PERIOD.--Maximum daily discharge, 11,000 ft³/s, estimated, maximum gage height 12.73, Jan. 24; minimum, 0.63 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	6.6	117	107	301	110	2530	1910	66	33	25	2.2
2	5.1	6.7	110	103	357	108	1030	1490	55	28	23	1.9
3	4.3	6.4	88	94	302	115	674	1250	46	23	18	1.9
4	3.7	6.1	74	89	286	117	506	976	41	22	14	1.9
5	3.1	5.7	64	79	246	106	404	885	98	21	12	1.7
6	3.4	5.2	57	e75	227	100	336	636	79	18	10	1.4
7	2.7	4.9	54	e75	365	98	290	493	110	15	8.4	1.2
8	2.3	4.7	60	e75	536	95	253	392	98	45	6.9	1.2
9	2.1	4.5	121	e75	455	93	233	308	69	26	5.8	1.1
10	1.8	4.3	184	e85	377	107	215	267	51	24	5.1	0.96
11	1.5	4.1	238	e120	342	107	191	259	39	65	4.4	0.87
12	1.5	3.8	230	e145	292	107	174	220	32	46	3.7	0.79
13	2.2	3.8	199	e150	253	125	167	236	27	93	3.2	0.67
14	3.3	3.8	700	e150	221	144	161	464	24	236	2.8	0.81
15	3.1	3.7	674	e145	199	141	157	329	26	167	4.7	1.3
16	2.9	3.6	388	e140	e180	205	148	254	33	94	5.4	1.6
17	3.4	3.5	287	e135	e170	e5700	134	209	28	60	4.6	3.0
18	3.4	3.6	303	e130	e150	e11000	125	249	23	43	3.9	4.4
19	4.1	3.9	279	1050	e140	e3250	117	265	19	33	4.6	4.2
20	6.7	3.1	229	1590	141	e1150	111	205	16	34	5.1	5.0
21	6.6	3.0	189	740	183	992	105	173	14	34	4.1	15
22	6.2	3.0	162	479	162	682	106	149	12	31	3.5	65
23	6.3	3.0	170	6330	144	523	111	128	11	42	2.7	59
24	5.7	4.3	333	9370	134	422	111	112	9.9	35	2.3	31
25	6.5	280	268	4470	126	349	2770	98	9.5	175	2.3	21
26	6.6	275	225	1340	123	354	1210	84	11	133	2.6	48
27	6.6	140	201	757	127	616	668	187	141	81	3.9	224
28	5.8	99	173	542	119	467	502	160	86	57	4.7	147
29	5.7	76	153	420	---	385	488	119	53	55	3.7	84
30	6.3	78	134	345	---	333	366	96	43	39	3.2	55
31	6.4	---	117	292	---	1790	---	78	---	31	2.6	---
TOTAL	135.3	1053.3	6581	29697	6658	29891	14393	12681	1370.4	1839	206.2	787.10
MEAN	4.365	35.11	212.3	958.0	237.8	964.2	479.8	409.1	45.68	59.32	6.652	26.24
MAX	6.7	280	700	9370	536	11000	2770	1910	141	236	25	224
MIN	1.5	3.0	54	75	119	93	105	78	9.5	15	2.3	0.67
CFSM	0.03	0.21	1.25	5.64	1.40	5.67	2.82	2.41	0.27	0.35	0.04	0.15
IN.	0.03	0.23	1.44	6.50	1.46	6.54	3.15	2.77	0.30	0.40	0.05	0.17

e Estimated

03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	4.218	19.82	186.6	681.4	532.1	518.3	469.1	318.9	243.7	99.27	33.80	7.277
MAX	9.46	36.6	423	962	1145	964	1118	635	782	349	104	26.2
(WY)	1999	1998	1999	1999	2001	2002	1998	1998	1997	1999	1998	2002
MIN	0.81	5.07	32.4	141	238	250	206	80.3	30.6	11.9	4.65	1.67
(WY)	2000	1999	2000	2000	2002	2001	2001	2001	2001	2000	1997	1997

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

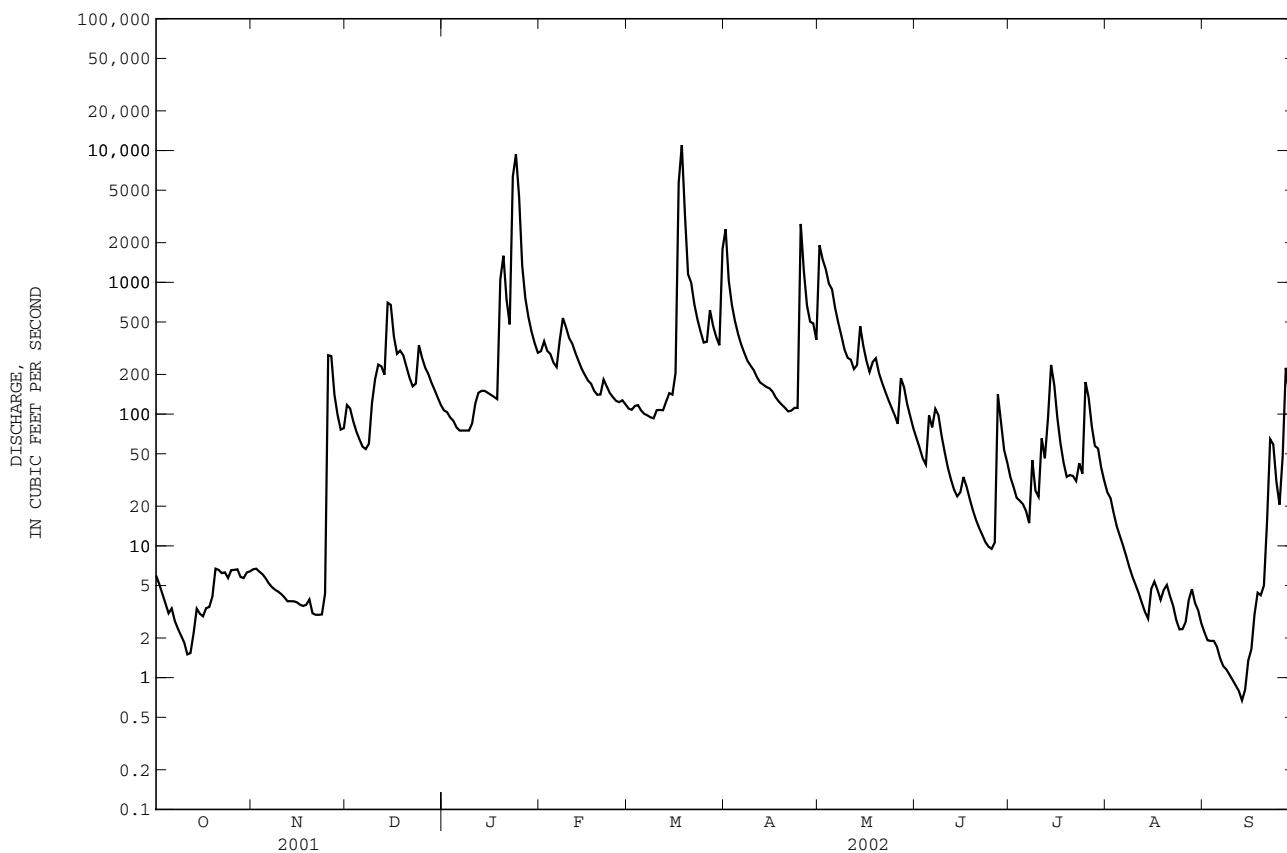
WATER YEARS 1997 - 2002

ANNUAL TOTAL	72476.8	105292.30	
ANNUAL MEAN	198.6	288.5	252.5
HIGHEST ANNUAL MEAN			378
LOWEST ANNUAL MEAN			138
HIGHEST DAILY MEAN	8500	Feb 17	11000
LOWEST DAILY MEAN	1.5	Oct 11	0.67
ANNUAL SEVEN-DAY MINIMUM	2.0	Oct 7	0.91
MAXIMUM PEAK FLOW			15400
MAXIMUM PEAK STAGE			12.73
INSTANTANEOUS LOW FLOW			b0.63
ANNUAL RUNOFF (CFSM)	1.17		1.70
ANNUAL RUNOFF (INCHES)	15.86		23.04
10 PERCENT EXCEEDS	310		490
50 PERCENT EXCEEDS	59		93
90 PERCENT EXCEEDS	4.0		3.1

a From rating curve extended above 6,710 ft³/s.

b Also occurred Sept. 14.

c Also occurred Oct. 9, 1999.



TENNESSEE RIVER BASIN

03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1997 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	TUR- BID- ITY FIELD WATER UNFLTRD (NTU) (61028)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	E COLI, MTEC MF WATER (COL/ 100 ML) (31633)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)
NOV 19...	1045	10	87	6.5	9.0	739	.3	11.1	99	--	0	24	20
JAN 16...	1115	142	47	7.0	2.0	743	1.1	14.6	108	--	--	5	4
FEB 21...	1300	196	41	7.0	6.5	735	.7	12.5	105	E4	--	5	4
MAR 19...	1230	2110	34	6.7	11.5	735	10	11.5	109	E1400	--	4	3
JUN 07...	1130	143	47	6.9	23.5	733	1.2	7.8	95	26	--	8	7
JUL 24...	1145	36	46	6.9	25.5	725	1.3	7.4	95	20	--	12	10
SEP 03...	1200	2.7	76	7.2	27.0	736	1.2	6.8	89	<1	--	23	19

Date	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)
NOV 19...	5.9	8.64	<.008	<.05	<.04	.19	--	.004	<.02	.6
JAN 16...	5.9	4.92	<.008	.33	<.04	.12	.44	<.004	<.02	.8
FEB 21...	5.9	3.28	<.008	.23	<.04	E.10	--	<.004	<.02	1.3
MAR 19...	5.4	1.88	<.008	.20	<.04	.29	.49	.018	<.02	17
JUN 07...	5.9	3.32	<.008	.12	<.04	.21	.33	.010	<.02	.6
JUL 19...	--	--	--	--	--	--	--	--	--	--
JUL 24...	3.5	3.36	<.008	<.05	<.04	.16	--	.009	<.02	.4
SEP 03...	4.2	8.16	<.008	E.04	<.04	.20	--	.008	<.02	.3

E--Estimated

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TENNESSEE RIVER BASIN

03539800 OBED RIVER NEAR LANCING, TN

LOCATION.--Lat 36°04'53", long 84°40'15", Morgan County, Hydrologic Unit 06010208, on left bank at Alley Ford, 2.9 mi southwest of Lancing, 3.0 mi downstream from Clear Creek, and at mile 1.5.

DRAINAGE AREA.--518 mi².

PERIOD OF RECORD.--October 1956 to September 1968, March 1973 to December 1987, March 1999 to current year. Prior to May 1957 monthly discharge only, published in WSP 1726.

GAGE.--Water-stage recorder. Datum of gage is 891.91 ft above NGVD of 1929.

REMARKS.--Records goods except for Dec. 31, Jan. 9 to May 28 to July 12, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on Mar. 23, 1929, reached a stage of 33.9 ft, 35 ft downstream from gage, from high water marks by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2000	*50,100	*21.55	Mar 31	2315	15,700	12.21
Mar 18	1000	41,600	19.88	Apr 25	0930	13,700	11.42

Minimum discharge, 2.7 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	26	625	e350	1190	365	9270	5060	e140	e75	59	7.3
2	26	25	521	e320	1550	352	4180	5480	e120	e65	56	6.4
3	23	25	412	e290	1280	389	2540	8230	e100	e60	45	5.9
4	20	23	297	e240	1160	388	1850	5000	e90	e50	36	5.6
5	19	23	243	e240	971	359	1430	4000	e220	e45	30	5.3
6	19	21	208	e250	854	333	1150	2610	e250	e45	25	4.9
7	17	21	194	e280	1400	320	940	1880	e250	e40	20	4.8
8	15	20	209	e230	2030	312	788	1460	e230	e35	17	4.4
9	13	19	366	e230	1750	307	711	1110	e190	e35	15	4.0
10	13	19	550	242	1470	356	677	897	e150	e35	13	3.5
11	15	18	741	400	1340	395	600	911	e110	e30	11	3.2
12	16	18	829	663	1150	385	535	753	e80	e60	10	2.9
13	14	17	711	610	970	456	504	731	e65	99	8.9	2.7
14	17	18	3030	540	804	561	477	1670	e55	366	8.2	4.0
15	16	17	3120	483	708	543	446	1210	e45	351	7.9	5.1
16	19	17	1680	426	642	757	416	884	e35	217	9.9	4.8
17	37	17	1130	388	580	11700	376	689	e30	129	13	5.1
18	29	16	1300	388	509	30300	347	708	e30	85	12	6.9
19	24	16	1220	2930	456	9830	329	732	e25	68	10	8.6
20	22	17	921	6330	453	4510	314	559	e25	70	9.5	7.2
21	24	16	687	3180	612	3310	293	465	e20	65	9.4	20
22	24	96	575	2000	581	2320	291	408	e20	58	8.3	81
23	22	108	553	22400	508	1780	292	368	e20	84	7.8	132
24	22	79	1200	30000	453	1460	287	336	e20	81	8.5	88
25	22	1050	1090	18300	419	1200	7130	312	e15	252	8.0	65
26	20	1170	840	5940	402	1120	4020	291	e15	303	7.3	94
27	20	537	685	3260	420	1690	2200	355	e40	207	7.1	504
28	23	357	582	2280	407	1350	1610	e340	e150	142	9.2	527
29	29	279	504	1710	---	1130	1410	e280	e105	117	10	330
30	25	298	436	1370	---	1030	1060	e215	e85	84	8.7	223
31	26	---	e380	1140	---	5330	---	e175	---	65	8.7	---
TOTAL	661	4383	25839	107410	25069	84638	46473	48119	2730	3418	509.4	2166.6
MEAN	21.32	146.1	833.5	3465	895.3	2730	1549	1552	91.00	110.3	16.43	72.22
MAX	37	1170	3120	30000	2030	30300	9270	8230	250	366	59	527
MIN	13	16	194	230	402	307	287	175	15	30	7.1	2.7
CFSM	0.04	0.28	1.61	6.69	1.73	5.27	2.99	3.00	0.18	0.21	0.03	0.14
IN.	0.05	0.31	1.86	7.71	1.80	6.08	3.34	3.46	0.20	0.25	0.04	0.16

e Estimated

03539800 OBED RIVER NEAR LANCING, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	274.2	950.9	1430	1773	1710	2262	1533	1096	378.8	397.3	149.0	156.8
MAX	1552	3829	3149	4780	3611	6220	3522	4066	1475	2572	587	856
(WY)	1976	1958	1968	1974	1962	1975	1977	1984	1961	1979	1985	1982
MIN	1.58	4.98	43.5	69.5	354	682	261	115	70.7	11.3	7.13	1.43
(WY)	1981	1964	1964	1981	1968	1985	1986	1962	1958	1980	1980	1968

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

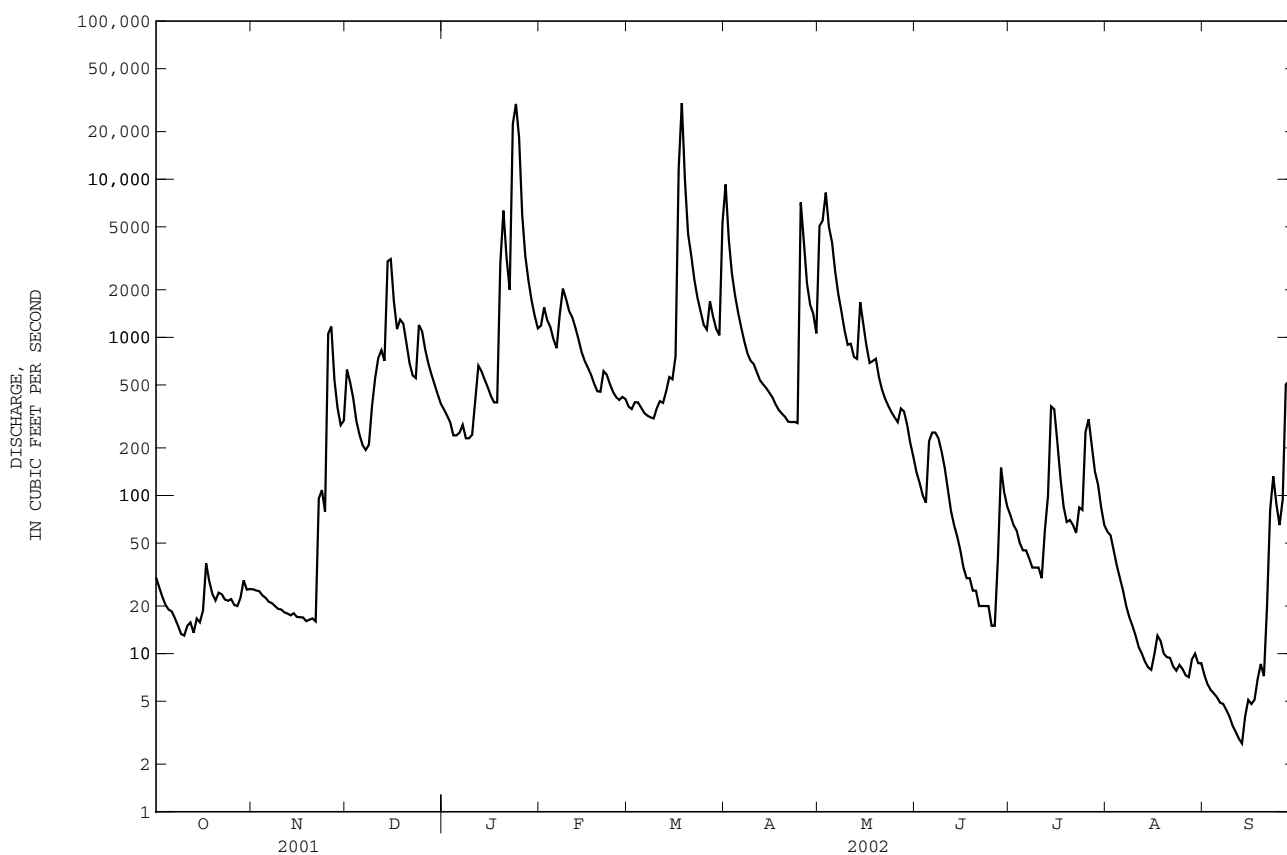
FOR 2002 WATER YEAR

WATER YEARS 1957 - 2002

ANNUAL TOTAL	222816	351416.0	
ANNUAL MEAN	610.5	962.8	991.8
HIGHEST ANNUAL MEAN			1770
LOWEST ANNUAL MEAN			184
HIGHEST DAILY MEAN	16800	Feb 17	30300
LOWEST DAILY MEAN	10	Sep 18	2.7
ANNUAL SEVEN-DAY MINIMUM	12	Sep 15	3.5
MAXIMUM PEAK FLOW			50100
MAXIMUM PEAK STAGE			21.55
INSTANTANEOUS LOW FLOW			2.7
ANNUAL RUNOFF (CFSM)	1.18		1.86
ANNUAL RUNOFF (INCHES)	16.00		25.24
10 PERCENT EXCEEDS	1290		1730
50 PERCENT EXCEEDS	175		252
90 PERCENT EXCEEDS	18		10

a From rating curve extended above 33,000 ft³/s, on basis of slope conveyance study at gage height 22.40 ft and slope-area measurement of peak flow.

b From cross line in gage well, 30.5 ft from flood marks.



TENNESSEE RIVER BASIN

03540500 EMORY RIVER AT OAKDALE, TN

LOCATION.--Lat 35°58'59", long 84°33'29", Morgan County, Hydrologic Unit 06010208, on left bank, at Oakdale, 1,000 ft downstream from highway bridge, 1,100 ft downstream from Mud Lick Creek, and at mile 18.3.

DRAINAGE AREA.--764 mi².

PERIOD OF RECORD.--June 1927 to current year. Prior to October 1929, published as Emery River at Harriman and October 1929 to September 1934 as Emery River at Oakdale.

REVISED RECORDS.--WSP 823: Drainage area. WSP 923: 1940. WSP 1386: 1928-30(M), 1932, 1943, 1945(P).

GAGE.--Data collection platform and data logger. Datum of gage is 761.38 ft above NGVD of 1929. Prior to Oct. 1, 1929, nonrecording gage at site 5.8 mi downstream at datum 43.60 ft lower, and Oct. 1, 1929, to Dec. 29, 1969, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1857, that of Mar. 23, 1929, from report of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 19,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	2130	*75,200	*28.85	Mar 31	2330	20,600	16.99
Mar 18	1030	62,800	26.56				

Minimum discharge, 5.0 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	30	841	501	1540	528	13200	5530	189	79	85	11
2	41	32	759	443	2020	503	5940	7400	157	64	77	9.8
3	34	30	606	439	1750	545	3590	10700	132	55	72	8.7
4	29	29	454	374	1610	553	2560	6760	119	59	61	7.9
5	24	28	352	340	1390	513	1960	5430	151	49	52	7.2
6	25	27	299	379	1240	475	1590	3580	283	43	45	6.6
7	21	25	276	395	1780	452	1330	2550	225	35	36	6.2
8	19	25	310	371	2890	437	1150	1930	256	30	29	5.8
9	18	23	480	346	2570	435	1050	1490	181	37	24	5.6
10	15	21	819	349	2120	508	1010	1230	139	53	20	5.5
11	13	20	1220	458	1870	561	891	1190	107	84	17	5.5
12	13	19	1340	840	1610	564	800	1040	86	96	15	5.4
13	17	19	1300	839	1390	643	758	956	75	167	13	5.1
14	22	18	5410	771	1190	767	724	1850	68	523	11	5.6
15	59	18	4990	704	1050	769	684	1520	63	611	9.6	6.8
16	44	18	2560	632	954	924	635	1170	59	355	9.0	6.8
17	32	17	1710	572	860	13800	576	937	64	215	8.8	7.6
18	45	16	1930	566	757	44100	525	865	60	145	11	8.0
19	43	16	1830	3920	679	14200	490	966	51	110	25	7.8
20	36	17	1410	9660	677	6250	460	761	44	143	27	7.8
21	31	17	1080	4810	837	4460	427	627	40	120	32	40
22	31	16	890	2930	822	3110	422	529	34	97	25	123
23	31	94	881	31000	733	2340	421	454	29	85	19	237
24	29	109	1630	42400	666	1890	400	394	25	131	15	160
25	30	1090	1620	27300	625	1560	7070	338	23	150	13	108
26	29	1600	1300	8650	599	1390	5420	290	24	353	12	130
27	27	792	1070	4680	602	1900	2940	348	25	253	11	725
28	25	522	902	3180	587	1590	2090	461	166	184	9.4	976
29	24	391	777	2380	---	1370	1800	359	119	147	8.8	561
30	34	442	673	1870	---	1290	1400	282	92	135	11	349
31	33	---	583	1560	---	6130	---	230	---	100	13	---
TOTAL	923	5521	40302	153659	35418	114557	62313	62167	3086	4708	816.6	3549.7
MEAN	29.77	184.0	1300	4957	1265	3695	2077	2005	102.9	151.9	26.34	118.3
MAX	59	1600	5410	42400	2890	44100	13200	10700	283	611	85	976
MIN	13	16	276	340	587	435	400	230	23	30	8.8	5.1
MED	29	25	902	771	1120	924	1030	966	81	110	17	7.9
CFSM	0.04	0.24	1.70	6.49	1.66	4.84	2.72	2.62	0.13	0.20	0.03	0.15
IN.	0.04	0.27	1.96	7.48	1.72	5.58	3.03	3.03	0.15	0.23	0.04	0.17

03540500 EMORY RIVER AT OAKDALE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	278.4	1048	2192	2840	2966	3152	2171	1331	712.8	495.3	278.3	226.8
MAX	1971	6214	7938	7941	8136	8962	5808	5804	6731	3694	2107	1562
(WY)	1976	1958	1991	1937	1939	1975	1977	1973	1989	1967	1942	1944
MIN	0.57	0.37	42.1	97.8	422	946	374	140	16.3	5.55	7.70	0.91
(WY)	1954	1954	1940	1981	1941	1985	1986	1962	1936	1944	1930	1954

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1927 - 2002

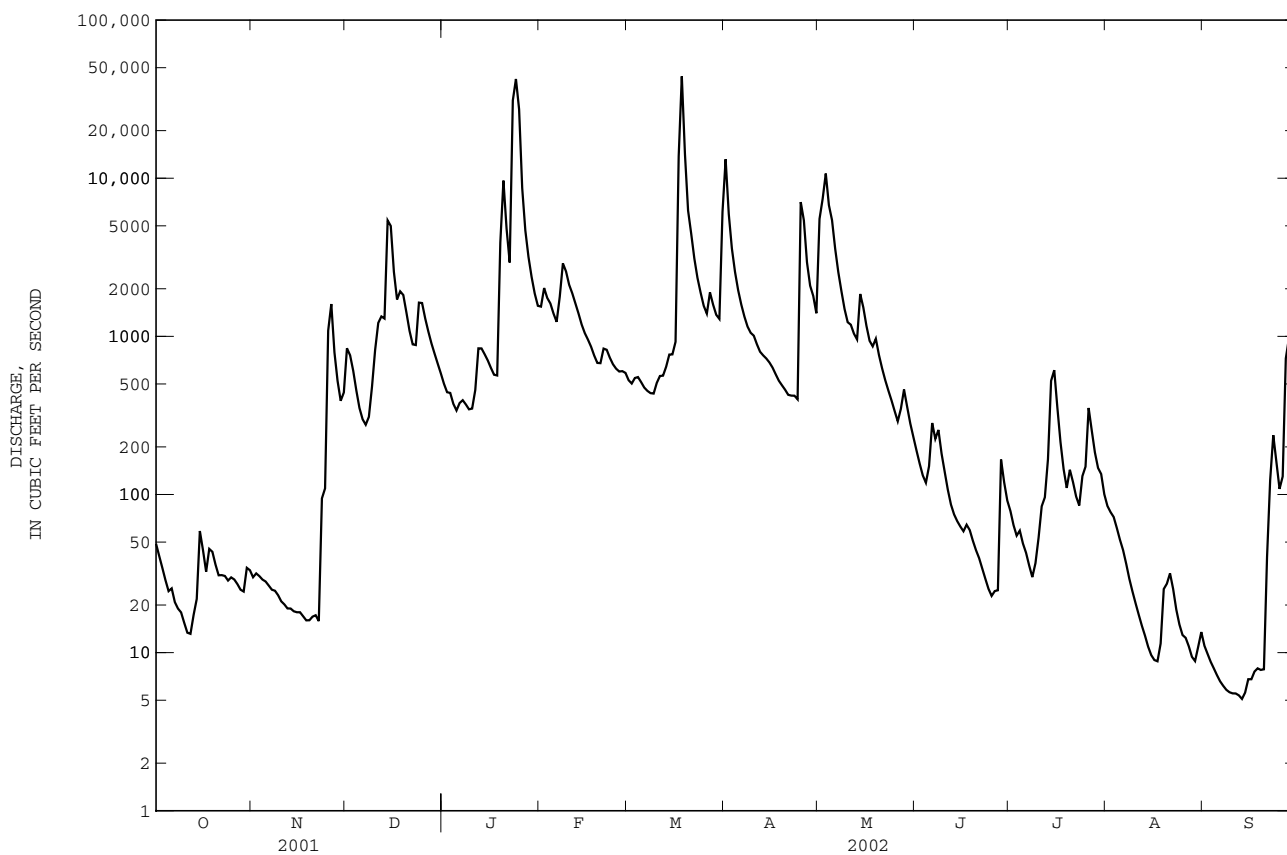
ANNUAL TOTAL	327534	487020.3	
ANNUAL MEAN	897.4	1334	1464
HIGHEST ANNUAL MEAN			2653
LOWEST ANNUAL MEAN			441
HIGHEST DAILY MEAN	24900	Feb 17	103000
LOWEST DAILY MEAN	11	Sep 18	a0.00
ANNUAL SEVEN-DAY MINIMUM	17	Oct 7	0.00
MAXIMUM PEAK FLOW			b195000
MAXIMUM PEAK STAGE			c41.20
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (CFSM)	1.17		1.92
ANNUAL RUNOFF (INCHES)	15.95		26.04
10 PERCENT EXCEEDS	1880		3400
50 PERCENT EXCEEDS	276		546
90 PERCENT EXCEEDS	25		20

a Also occurred on Aug. 14, 15, 1944; Nov. 7, 8, 9, 1952.

b From rating curve extended above 85,000 ft³/s confirmed by slope-area measurements of May 28, 1973, flood at gage height 38.68

c From floodmarks and flood profile, present site and datum, 61.1 ft at site and datum then in use.

d Also occurred on Sept. 14.



03566000 HIWASSEE RIVER AT CHARLESTON, TN

LOCATION.--Lat 35°17'16", long 84°45'07", until April 9, 1996, lat 35°17'17", long 84°45'10", until Nov. 10, 1998, lat 35°17'42", long 84°45'36" thereafter, Hydrologic Unit 06020002, on left bank 250 ft upstream from Norfolk Southern Railway bridge until April 9, 1996, at Norfolk Southern Railway bridge until Nov. 10, 1998, on right bank at dolphin at Bowater Southern Paper Company's barge facility thereafter, 0.3 mi downstream from bridge on U.S. Highway 11 at Charleston, and at mile 18.2.

DRAINAGE AREA.--2,298 mi².

PERIOD OF RECORD.--November 1898 to April 1899, November 1899 to April 1903, October 1919 to January 1940, January 1963 to January 1977, September 1979 to December 1981 (vane lost), August 1987 to current year. Gage-height records collected at this station during the period December 1884 to December 1889 are contained in the United States War Department Stages of Ohio River and Principal Tributaries, 1858-89, Part 1, and during period January 1890 to December 1943 in reports of the U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1436: 1902, 1922(M), 1928, 1936(M).

GAGE.--Data collection platform and velocity recorder. Datum of gage is 665.56 ft above NGVD of 1929. Prior to July 18, 1925, non-recording gages, and July 18, 1925 to September 6, 1926, water-stage recorder, at present site, at datum 1.50 ft higher. September 1926 to January 1940, January 1963 to January 1977, September 1979 to December 1981, August 1987 to April 1996, on left bank 250 ft upstream of present site, at same datum.

REMARKS.--Records good except for estimated discharges, which are poor. Some diversions above gage for industrial and municipal water supplies. Flow regulated by seven reservoirs (see p. 262 and Water Resources Data for Georgia and North Carolina). Reverse flow has occurred for short periods each year since closure of Chickamauga Dam on Tennessee River in 1939. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1886, reached a stage of 34.0 ft, present datum, discharge about 70,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,700 ft³/s, Jan. 25; maximum gage height, 19.40 ft, Jan. 25; minimum daily, 645 ft³/s, Nov. 24, minimum gage height, 9.92 ft, Jan. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2470	1400	1970	2440	5880	1880	8730	1230	2800	2330	3230	2450
2	3470	2270	1310	3440	6240	1600	5110	2620	2790	1480	3590	1730
3	4360	2550	1820	4320	5400	1100	4490	2960	3070	1960	4550	2420
4	3890	2440	3480	2860	5080	2740	3780	8050	3360	2200	3860	2950
5	3510	2590	3980	3160	5160	2440	3480	11200	3680	2040	4130	2910
6	2680	3320	2930	1430	4420	1790	2570	4120	3830	2060	3560	2690
7	2670	3490	3150	e2700	4750	2320	2110	3500	3320	2040	3440	3530
8	3370	2900	2620	e2100	5630	1770	2600	3400	2650	2500	3040	3390
9	3340	2680	2830	e1700	4640	1060	2040	3350	2510	2140	3480	2910
10	3720	2400	3860	e2100	2470	2050	2170	3080	2540	2340	2870	3960
11	3120	2500	4220	e1700	3050	1310	1970	2380	2810	2430	2120	3920
12	3540	3050	2450	e1200	4100	1490	1740	2170	3100	1610	2360	3090
13	3600	3060	2970	e1400	4310	2390	1690	2770	3530	1620	3150	2360
14	3520	3980	5150	e2100	3910	2260	1590	2770	2770	2440	3220	2890
15	3870	3270	4110	e1700	3640	1540	1750	2190	2620	2250	2890	2450
16	4540	2920	2860	1670	2650	1900	2570	e2100	1880	2300	2940	2070
17	4730	1910	3510	2240	1910	2610	1870	e2300	2340	3730	2950	2320
18	4090	780	5810	3280	2840	3000	1670	3120	3010	3820	2400	2490
19	3810	1470	5950	4370	2030	3900	1580	2990	3080	3590	2740	2960
20	2460	2640	5070	10300	2340	4670	2020	2670	2380	3050	3680	3440
21	1280	4250	4480	5530	2360	4330	2750	2150	1990	2170	3340	5930
22	2440	2130	5270	6790	2050	4730	3060	1880	1700	3090	3150	11100
23	3020	939	1590	11300	1950	3470	2040	2230	1780	3930	3770	6020
24	2950	645	3530	15700	1490	3090	1260	1910	1280	2850	3750	4320
25	2840	778	3930	22300	1460	1820	1500	2970	2040	3110	2740	4590
26	3060	1910	3240	15600	1190	2060	1530	2450	2020	2730	3470	8300
27	2520	1560	3340	11500	1890	2760	781	2770	2120	3310	2920	6470
28	2610	1160	2670	8610	1740	2040	1070	1910	1880	3570	3090	5580
29	2880	1240	2150	12800	---	1970	1320	2410	1590	3560	3500	4990
30	2620	1010	4320	12300	---	7590	1130	2960	1600	3840	3690	4930
31	2630	---	3800	10800	---	12600	---	2960	---	3730	3280	---
TOTAL	99610	67242	108370	189440	94580	90280	71971	95570	76070	83820	100900	119160
MEAN	3213	2241	3496	6111	3378	2912	2399	3083	2536	2704	3255	3972
MAX	4730	4250	5950	22300	6240	12600	8730	11200	3830	3930	4550	11100
MIN	1280	645	1310	1200	1190	1060	781	1230	1280	1480	2120	1730

e Estimated

03566000 HIWASSEE RIVER AT CHARLESTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3903	4259	5323	6015	6253	5978	4366	3695	3855	3763	3834	3606
MAX	9332	8638	12980	13060	16270	13860	11950	7922	8897	6975	6201	5118
(WY)	1990	1968	1968	1974	1990	1990	1994	1973	1989	1967	1967	1967
MIN	1442	1681	2070	2318	1623	1866	1110	971	1395	1750	1810	1747
(WY)	1989	1982	1988	2000	2000	1988	1988	1988	1988	1988	1988	1987

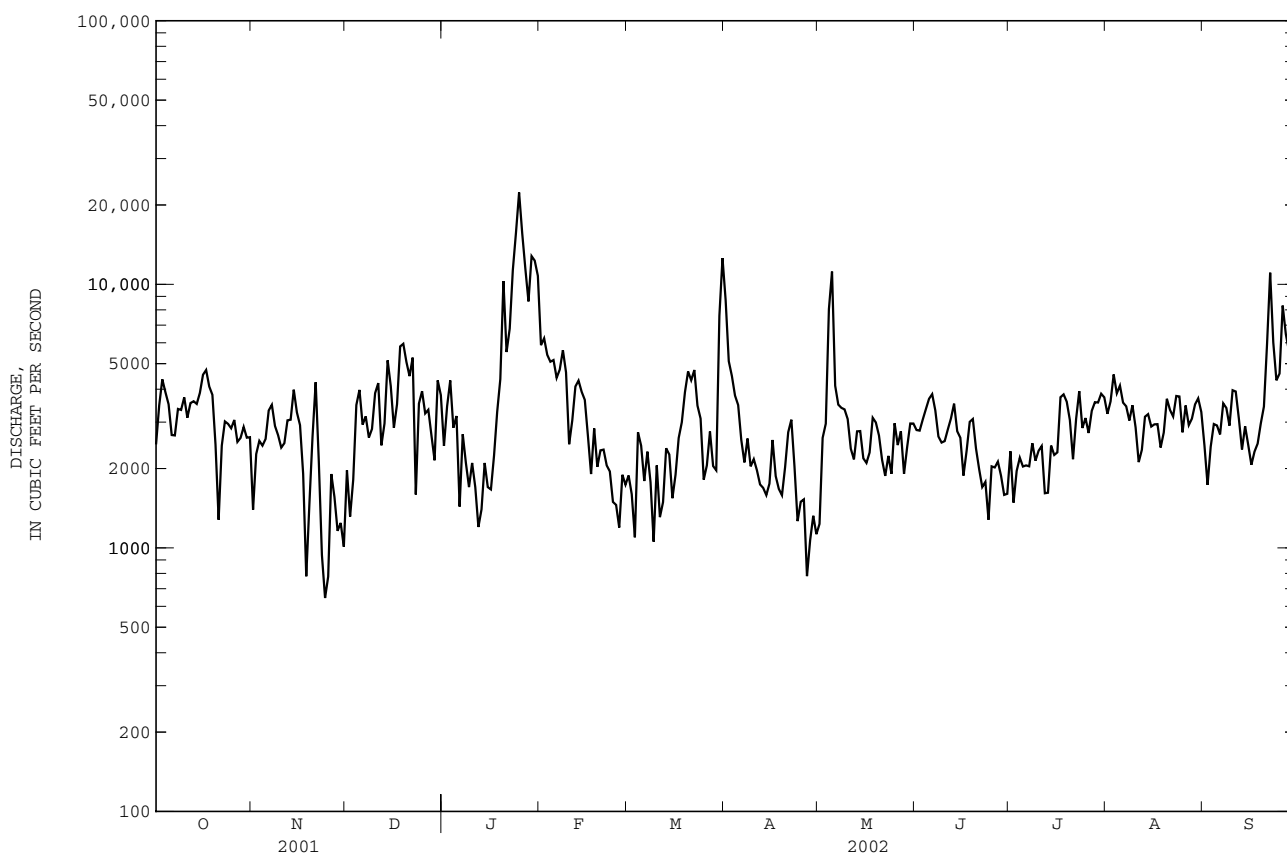
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	1068672	1197013	
ANNUAL MEAN	2928	3279	
HIGHEST ANNUAL MEAN			4563
LOWEST ANNUAL MEAN			6891
HIGHEST DAILY MEAN			1894
LOWEST DAILY MEAN	12400	Jan 20	54000
ANNUAL SEVEN-DAY MINIMUM	645	Nov 24	524
MAXIMUM PEAK FLOW	1080	Jan 11	817
MAXIMUM PEAK STAGE			24700
10 PERCENT EXCEEDS	4520		19.40
50 PERCENT EXCEEDS	2670		29.42
90 PERCENT EXCEEDS	1400		2030



035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN

LOCATION.--Lat 35°26'55", long 84°39'23", McMinn County, Hydrologic Unit 06020002, on right bank at downstream end of culvert at county road, 1.5 mi west of Athens.

DRAINAGE AREA.--42.1 mi²

PERIOD OF RECORD.--October 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 775 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1745	1,540	12.93	Mar 18	1330	*3,560	*14.94
Jan 24	1930	1,450	12.78	Sep 21	2115	1,710	13.20
Mar 17	1830	1,210	12.33				

Minimum discharge, 12 ft³/s, Nov. 18, 19, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	18	29	123	42	247	108	42	25	32	17
2	17	15	16	28	106	42	192	73	41	25	23	18
3	17	14	15	29	97	42	163	137	41	29	21	18
4	16	14	15	27	89	41	143	301	45	28	20	18
5	15	14	15	26	82	40	130	167	47	25	20	18
6	15	14	15	30	90	38	115	132	38	24	20	17
7	15	14	20	31	123	38	105	113	36	23	20	15
8	15	14	20	29	104	37	100	99	35	23	19	15
9	15	14	17	28	90	37	100	99	34	23	19	15
10	15	14	41	28	85	37	91	96	33	26	18	16
11	15	13	52	27	81	36	82	87	33	26	18	16
12	14	14	26	25	78	56	78	74	32	24	18	15
13	14	14	115	25	74	52	74	115	32	33	18	16
14	15	14	133	25	68	47	70	115	31	31	18	17
15	15	14	59	24	67	45	68	87	31	27	19	18
16	15	14	46	23	61	65	65	79	29	25	21	17
17	15	13	99	24	58	574	62	75	29	24	21	17
18	15	13	96	24	56	1630	59	100	29	24	20	19
19	15	13	61	423	54	466	57	74	29	23	21	18
20	15	13	51	227	59	281	55	67	28	23	23	17
21	14	13	46	135	56	220	52	63	27	22	20	261
22	14	13	41	106	50	175	52	59	27	42	18	140
23	15	13	43	879	48	154	50	57	27	25	19	39
24	15	16	44	987	46	140	49	54	27	23	18	31
25	27	32	38	781	45	128	51	51	29	30	31	33
26	16	18	37	293	45	120	47	50	27	29	30	74
27	14	16	35	212	43	109	47	48	27	22	30	72
28	14	15	34	176	42	100	51	48	26	23	23	47
29	15	15	33	154	---	94	47	47	27	23	20	39
30	15	29	31	138	---	236	45	45	26	21	20	35
31	15	---	30	124	---	400	---	49	---	25	18	---
TOTAL	479	457	1342	5117	2020	5522	2547	2769	965	796	656	1108
MEAN	15.45	15.23	43.29	165.1	72.14	178.1	84.90	89.32	32.17	25.68	21.16	36.93
MAX	27	32	133	987	123	1630	247	301	47	42	32	261
MIN	14	13	15	23	42	36	45	45	26	21	18	15
CFSM	0.37	0.36	1.03	3.92	1.71	4.23	2.02	2.12	0.76	0.61	0.50	0.88
IN.	0.42	0.40	1.19	4.52	1.78	4.88	2.25	2.45	0.85	0.70	0.58	0.98

035661285 NORTH MOUSE CREEK NEAR ROCKY MOUNT HOLLOW NEAR ATHENS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.44	44.78	59.65	135.7	134.6	163.2	138.4	83.97	71.12	53.31	35.58	32.48
MAX	59.5	113	139	225	258	297	381	125	191	113	80.7	43.4
(WY)	1996	1996	1997	1996	1994	1994	1994	1999	1997	1994	1994	2000
MIN	15.1	15.2	19.7	48.2	58.2	64.2	53.1	41.8	32.2	25.7	21.2	19.7
(WY)	1994	2002	2000	2000	2000	2000	1995	2001	2002	2002	2002	2001

SUMMARY STATISTICS

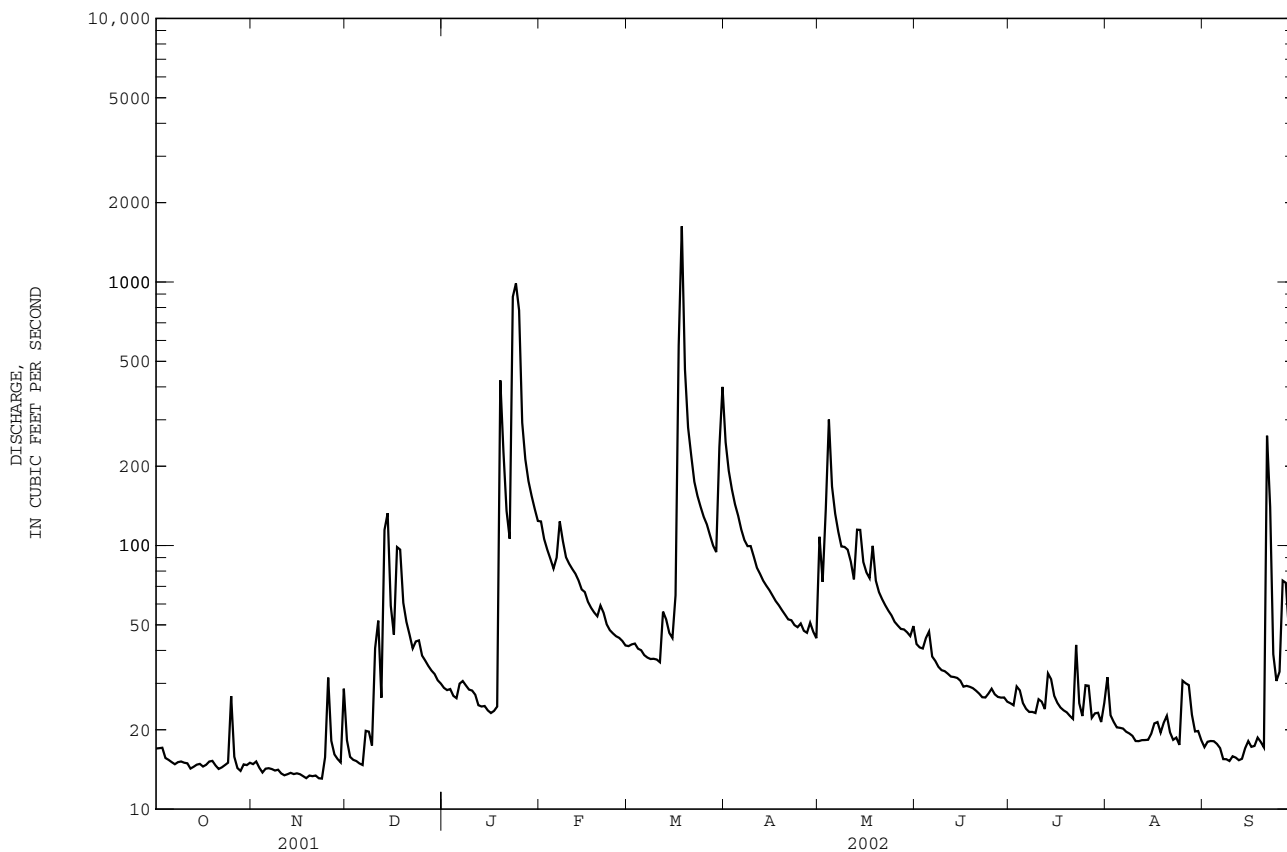
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	20823	23778	
ANNUAL MEAN	57.05	65.15	81.74
HIGHEST ANNUAL MEAN			125
LOWEST ANNUAL MEAN			48.1
HIGHEST DAILY MEAN	1010	Jan 19	2580
LOWEST DAILY MEAN	13	Nov 11	13
ANNUAL SEVEN-DAY MINIMUM	13	Nov 17	13
MAXIMUM PEAK FLOW			3560
MAXIMUM PEAK STAGE			14.94
INSTANTANEOUS LOW FLOW			a12
ANNUAL RUNOFF (CFSM)	1.36	1.55	1.94
ANNUAL RUNOFF (INCHES)	18.40	21.01	26.38
10 PERCENT EXCEEDS	115	123	154
50 PERCENT EXCEEDS	34	31	48
90 PERCENT EXCEEDS	15	15	20

a Also occurred Oct. 29, 1993, Nov. 19, 21, 2001.



03568000 TENNESSEE RIVER AT CHATTANOOGA, TN

LOCATION.--Lat 35°05'12", long 85°16'43", Hamilton County, Hydrologic Unit 06020001, 0.5 mi downstream from South Chickamauga Creek, 3.0 mi downstream from Chickamauga Dam, 3.5 mi upstream from Walnut Street Bridge in Chattanooga, and at mile 467.6.

DRAINAGE AREA.--21,400 mi², approximately.

PERIOD OF RECORD.--April 1874 to current year. Monthly discharges only for some periods, published in WSP 1306. July 1930 to December 1935, published as "at Hales Bar, near Chattanooga." Gage-height records collected in this vicinity since 1874 are contained in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 353: 1874-1912. WSP 783: 1917. WSP 823: 1875(M). WSP 973: 1942. WSP 1306: 1916(M). WSP 1386: 1932-34 (station at Hales Bar near Chattanooga).

GAGE.--Water-stage recorder. Datum of gage is 621.12 ft above NGVD of 1929. Prior to Feb. 1, 1939, nonrecording or recording gages at several sites from 7.0 mi upstream from Chattanooga to Hales Bar Dam 33 mi downstream at or within 0.2 ft of present datum, except nonrecording gage at Bridgeport, AL, 49.9 mi downstream at different datum Oct. 22, 1913, to Feb. 28, 1915, and Oct. 1, 1918, to Jan. 5, 1921. Auxiliary gages at several sites parts of periods since Feb. 28, 1915. Present auxiliary gage at site 2.2 mi downstream from base gage at same datum.

REMARKS.--Records fair except for periods of estimated daily discharges, which are poor. Flow regulated since 1936 by many upstream reservoirs (see p. 262 and Water Resources Data for adjoining states).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 410,000 ft³/s, Mar. 1, 1875, gage height, 53.8 ft, present datum, at Walnut Street, from rating curve extended above 250,000 ft³/s; minimum daily, 1,200 ft³/s, Nov. 1, 1953; minimum gage height, 0.0 ft, Sept. 11-14, 1881, Sept. 19, 1883.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 57.9 ft, Mar. 11, 1867, present datum at Walnut Street, discharge about 459,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 184,100 ft³/s, Jan. 24; maximum gage height, 29.41 ft, Jan. 26; minimum daily discharge, 4,140 ft³/s, Feb. 17; minimum gage height, 11.02 ft, Jun. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25000	34700	19700	23200	52700	24900	30800	12100	e15000	19200	14500	17000
2	22800	30300	18100	28600	52600	12600	38300	33800	e20000	5760	25200	14300
3	29900	28800	19200	31500	52000	24700	31400	29500	e28000	12100	23300	17600
4	32600	20900	12600	31900	49000	29900	16600	31400	e19000	19600	22300	19500
5	37100	28500	16800	19800	36500	24600	24900	51100	25700	21000	20100	17300
6	32100	32300	15500	15600	35900	17600	15100	48000	29500	17900	19100	17800
7	32000	31100	16600	23300	39600	17300	18300	31700	e22000	11900	19000	19900
8	34500	22700	23800	21200	36100	15500	27300	34600	e11000	18600	16800	14700
9	28500	23700	36600	27000	17100	8630	34400	29500	e9000	24800	25600	18800
10	23500	24100	38900	13200	33600	9640	21600	27500	e21000	16900	15400	19900
11	18000	24500	39000	15600	32100	19800	24200	16800	e18000	17100	16300	25000
12	16800	24000	29400	9050	34000	11400	9800	24000	e16000	14900	18800	13600
13	13700	34400	42500	8960	37000	11700	7490	28200	e17000	8070	16800	17100
14	20400	39200	35900	20400	35300	11200	8160	25700	e22000	9370	19300	16200
15	18400	40900	52800	20300	29800	6720	15800	16400	e10000	29000	14800	12000
16	25800	35900	45900	21300	31300	8490	17700	27200	e5000	25000	20600	18000
17	23200	11500	40800	28100	4140	23100	18000	25100	e14000	15000	12400	17100
18	22400	10800	37800	27100	37000	89400	19100	20400	e7000	20700	12600	18700
19	14000	26500	42000	27300	14600	131000	15500	8820	e8000	22800	22600	20300
20	25900	35800	41900	30400	13900	145000	12000	10200	e20000	17200	25600	21500
21	13000	31500	38600	38700	12500	128000	19100	12000	e26000	5000	23800	22900
22	32700	30800	39700	53600	18000	73900	17600	8330	e9000	21000	27500	19100
23	28500	26300	32800	79200	12500	46600	12400	14900	e19000	18800	26400	26900
24	32800	12300	27400	119000	8730	40500	15200	20800	e23000	18900	20900	15100
25	33600	14700	21300	163000	8560	37200	11600	14800	e24000	10600	19400	33800
26	26100	26700	27800	158000	20400	39400	7290	24800	e9000	14700	22300	47500
27	33100	22300	31700	150000	20500	26000	8840	18400	e12000	16800	15800	41100
28	36000	27400	28800	143000	28000	7220	11100	19900	e7100	19900	21500	20800
29	44200	24600	26400	113000	---	23400	23400	e12000	17900	21200	21500	21300
30	33400	21500	27600	82500	---	29900	23000	e15000	11100	21600	22200	23300
31	25500	---	34100	75200	---	45900	---	e13000	---	23900	20900	---
TOTAL	835500	798700	962000	1619010	803430	1141200	555980	693150	508100	540900	622600	630000
MEAN	26950	26620	31030	52230	28690	36810	18530	22360	16940	17450	20080	21000
MAX	44200	40900	52800	163000	52700	145000	38300	51100	29500	29000	27500	47500
MIN	13000	10800	12600	8960	4140	6720	7290	7100	5000	5000	12400	12000

e Estimated

03568000 TENNESSEE RIVER AT CHATTANOOGA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29170	33860	43240	48550	49540	46380	28480	28160	29280	29380	31310	28450
MAX	63270	68330	94270	127900	132800	98850	107800	87890	65280	49670	41590	42140
(WY)	1990	1958	1973	1974	1957	1963	1994	1984	1989	1989	1994	1967
MIN	16690	16340	13660	17370	20520	14380	7503	7805	11310	11230	12740	14090
(WY)	1984	1988	1988	1986	2000	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS

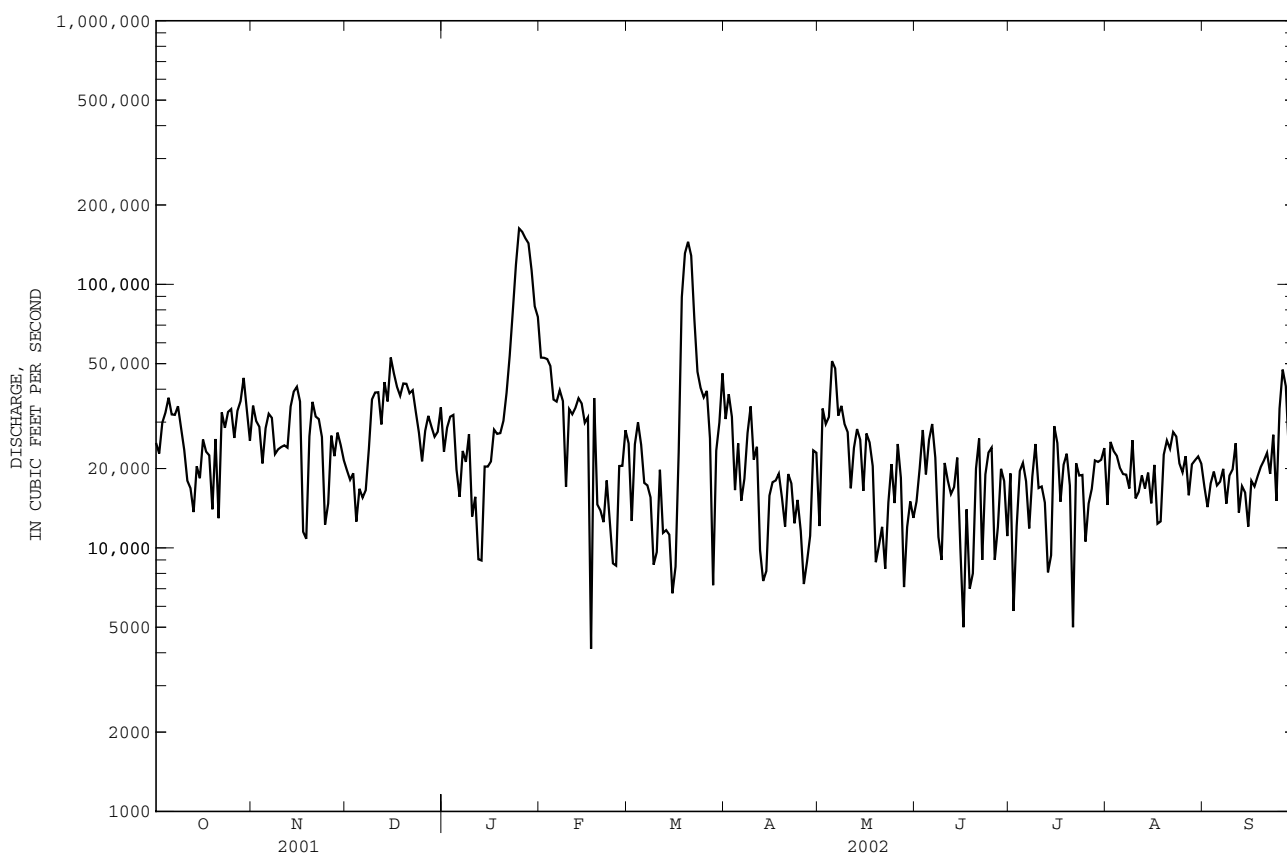
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

*WATER YEARS 1954 - 2002

ANNUAL TOTAL	8855640	9710570	
ANNUAL MEAN	24260	26600	
HIGHEST ANNUAL MEAN			35440
LOWEST ANNUAL MEAN			53260
HIGHEST DAILY MEAN			15070
LOWEST DAILY MEAN	75000	Feb 19	251000
ANNUAL SEVEN-DAY MINIMUM	7580	Apr 12	1200
MAXIMUM PEAK FLOW	8140	Apr 3	6790
MAXIMUM PEAK STAGE			267000
10 PERCENT EXCEEDS	39400		38.98
50 PERCENT EXCEEDS	21600		
90 PERCENT EXCEEDS	10200		

* Regulated period only.



TENNESSEE RIVER BASIN

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN

LOCATION.--Lat 35°12'22", long 85°29'48", Marion County, Hydrologic Unit 06020004, on right bank 250 ft upstream from county road bridge, 1.5 mi east of Whitwell, 3.0 mi upstream from bridge on State Highway 283, 4.5 mi downstream from Griffith Creek, and at mile 25.1.

DRAINAGE AREA.--402 mi², includes 18 mi² without surface drainagae.

PERIOD OF RECORD.--October 1920 to September 1994, October 1, 2001 to September 30, 2002. Prior to December 1920, monthly discharges only, published in WSP 1306.

REVISED RECORD.--WSP 603: 1922(M). WSP 758: 1929(M). WSP 1033: 1943(M). WSP 1386: 1921-22, 1923-25(M), 1927-28(M), 1930(M), 1933(M). WSP 1910: Drainagae area. WDR TN-76-1: 1973-75(P).

GAGE.--Data collection platform. Datum of gage is 632.73 ft above NGVD of 1929 (levels by Tennessee Valley Authority). Prior to Sept. 18, 1927, nonrecording gage at same datum 0.03 ft higher. Sept. 18, 1927, to Sept. 30, 1930, nonrecording gage at bridge 15 ft upstream at present datum.

REMARKS.--No estimated daily discharge. Records good. Prior to 1950, some diurnal fluctuation caused by small mills above station. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1867 reached a stage of about 19 ft from reports of Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 25	0930	15,300	15.29	Mar 31	1445	10,100	14.30
Mar 19	0330	*19,100	*15.91				

Minimum discharge, 37 ft³/s, Sept. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	56	597	301	1420	350	7410	380	286	120	86	62
2	64	56	404	280	1200	350	4850	726	269	116	82	60
3	61	54	336	265	1100	398	3030	1590	255	112	77	58
4	59	52	281	251	982	403	2020	3920	242	117	75	56
5	57	52	241	239	869	381	1580	4290	234	117	71	53
6	56	51	218	238	821	368	1320	2640	233	106	68	50
7	56	51	210	233	979	356	1130	1770	232	101	65	48
8	55	51	224	226	1190	342	991	1260	220	95	64	46
9	54	51	250	220	1230	336	896	986	210	89	62	45
10	52	51	265	210	1120	340	815	903	201	87	60	43
11	51	56	319	209	991	334	732	1110	189	90	59	40
12	51	50	361	208	878	478	673	898	181	102	58	38
13	51	49	509	207	792	909	630	817	174	146	56	38
14	58	50	3340	201	711	956	592	1180	168	179	55	39
15	74	48	2690	197	650	839	557	1150	163	173	56	39
16	89	50	1620	187	603	1020	520	876	158	174	58	39
17	83	48	1370	181	559	2410	495	710	154	146	58	39
18	71	49	1890	177	517	10600	537	736	145	136	58	45
19	67	49	1440	1290	478	17900	523	625	139	121	65	51
20	64	47	1060	3080	490	12100	473	545	141	109	68	50
21	63	46	800	2370	510	5410	440	485	144	101	63	59
22	64	46	645	1680	486	2710	414	441	136	94	63	96
23	61	50	595	4440	460	2120	389	407	131	97	60	136
24	58	60	608	13400	437	1780	376	379	128	121	58	94
25	64	1490	571	15100	415	1480	369	351	123	101	57	102
26	58	698	570	13000	403	1180	341	355	124	104	72	202
27	57	397	496	6800	385	1030	346	392	120	94	117	470
28	56	334	443	3000	370	894	374	405	122	92	87	525
29	59	251	400	2230	---	808	338	360	122	90	73	355
30	57	525	359	1870	---	4290	341	337	130	87	68	289
31	55	---	326	1590	---	9080	---	307	---	88	63	---
TOTAL	1892	4918	23438	73880	21046	81952	33502	31331	5274	3505	2082	3267
MEAN	61.03	163.9	756.1	2383	751.6	2644	1117	1011	175.8	113.1	67.16	108.9
MAX	89	1490	3340	15100	1420	17900	7410	4290	286	179	117	525
MIN	51	46	210	177	370	334	338	307	120	87	55	38
CFSM	0.16	0.43	1.97	6.21	1.96	6.88	2.91	2.63	0.46	0.29	0.17	0.28
IN.	0.18	0.48	2.27	7.16	2.04	7.94	3.25	3.04	0.51	0.34	0.20	0.32

03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2002, BY WATER YEAR (WY)

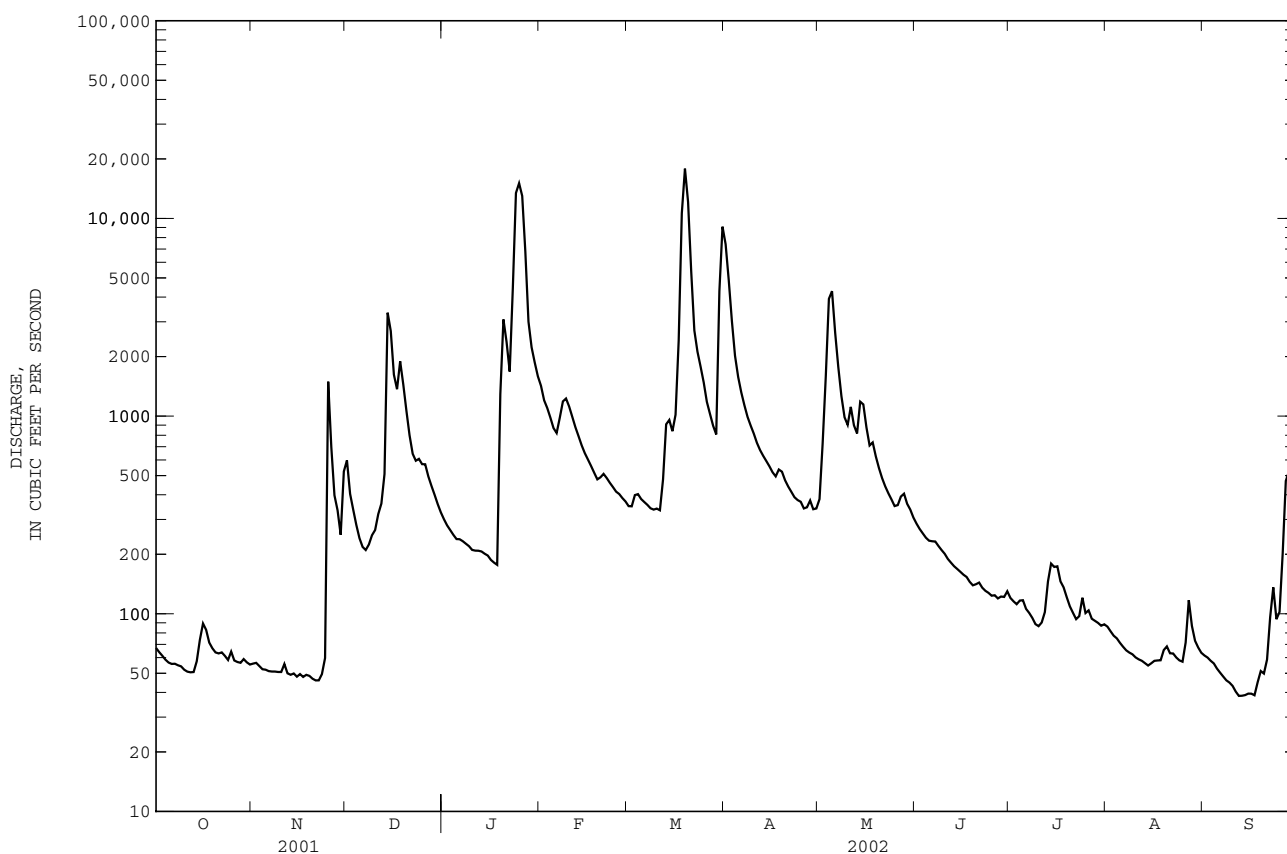
MEAN	182.6	464.9	1016	1371	1551	1644	1230	677.9	361.7	282.1	205.8	170.1
MAX	1626	3471	3935	3736	4126	3508	3449	2795	2381	1770	863	1152
(WY)	1990	1958	1991	1937	1994	1973	1994	1984	1928	1989	1926	1950
MIN	27.1	32.4	51.9	74.0	271	364	228	179	71.6	68.6	46.9	23.1
(WY)	1932	1932	1940	1981	1941	1988	1986	1941	1988	1986	1957	1925

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1921 - 2002

ANNUAL TOTAL	286087	
ANNUAL MEAN	783.8	759.5
HIGHEST ANNUAL MEAN		1284
LOWEST ANNUAL MEAN		305
HIGHEST DAILY MEAN	17900	Mar 19
LOWEST DAILY MEAN	38	Sep 12
ANNUAL SEVEN-DAY MINIMUM	39	Sep 11
MAXIMUM PEAK FLOW	19100	Mar 19
MAXIMUM PEAK STAGE	15.91	Mar 19
INSTANTANEOUS LOW FLOW	37	Sep 12
ANNUAL RUNOFF (CFSM)	2.04	1.98
ANNUAL RUNOFF (INCHES)	27.71	26.87
10 PERCENT EXCEEDS	1530	1770
50 PERCENT EXCEEDS	233	338
90 PERCENT EXCEEDS	52	61



TENNESSEE RIVER BASIN

03578000 ELK RIVER NEAR PELHAM, TN

LOCATION.--Lat 35°17'48", long 85°52'12", Grundy County, Hydrologic Unit 06030003, on right bank at downstream side of bridge on U.S. Highway 41, 1.1 mi southeast of Pelham, 1.8 mi upstream from Caldwell Creek, and at mile 194.2.

DRAINAGE AREA.--65.6 mi².

PERIOD OF RECORD.--October 1951 to November 1987, November 2000 to current year.

REVISED RECORDS.--WRD TN 1973: 1963(P), 1965(M), 1966(P), 1969(M), 1970-71(P).

GAGE.--Data collection platform. Datum of gage is 980.99 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Gage at datum 0.63 ft higher prior to Nov. 30, 1987.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,800 ft³/s, Mar. 16, 1973, gage height, 14.08 ft; minimum, 1.0 ft³/s, Sept. 27, 28, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 14	1415	2,390	10.43	Mar 31	0100	2,280	10.34
Jan 23	1800	*5,180	*11.97	May 4	1430	2,150	10.23
Mar 18	1130	4,370	11.62				

Minimum daily discharge, 1.1 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	22	284	65	273	59	1440	265	28	11	2.50	2.8
2	21	21	193	59	297	57	650	254	24	11	2.4	2.8
3	19	20	143	55	232	71	376	965	20	12	2.3	2.7
4	18	19	112	49	196	77	271	1750	18	10	2.2	2.6
5	16	e18	89	45	162	64	215	1110	36	8.9	2.1	2.7
6	16	e16	74	49	160	60	175	447	38	9.0	2.1	3.1
7	16	e14	93	57	287	58	150	291	39	9.1	2.0	3.6
8	17	14	197	50	273	55	130	209	29	8.3	1.9	3.4
9	16	14	283	46	229	55	121	173	20	7.3	1.9	2.7
10	14	14	238	55	198	79	109	241	16	6.3	1.8	2.3
11	14	14	249	67	179	69	93	216	13	5.9	1.7	1.9
12	14	14	197	65	150	186	90	151	11	5.7	1.8	1.5
13	15	13	345	59	130	313	91	142	8.8	7.8	1.7	1.3
14	131	13	1710	55	117	251	84	177	7.9	7.4	1.7	1.4
15	189	13	1020	50	106	198	75	120	9.2	5.4	6.0	1.7
16	103	13	418	45	95	354	62	90	8.2	4.5	13	2.4
17	69	14	513	43	84	591	55	72	8.0	4.8	10	2.4
18	52	14	873	43	73	2890	51	101	6.2	4.7	4.4	2.3
19	44	14	457	647	67	1440	50	96	4.7	4.7	4.7	2.0
20	38	14	298	996	88	654	45	68	4.3	4.5	4.8	1.9
21	33	14	221	445	129	437	44	54	4.8	4.3	4.3	3.1
22	29	14	176	291	97	306	44	46	5.5	4.0	4.4	2.8
23	27	55	207	2630	86	238	53	39	6.9	4.0	5.3	2.6
24	26	164	306	2930	78	196	42	35	7.0	3.9	5.4	2.3
25	28	829	224	2260	71	162	58	30	7.5	3.7	5.0	2.1
26	35	423	178	1010	70	161	66	27	8.6	3.3	5.1	21
27	31	214	148	492	75	167	53	48	9.2	3.3	5.4	56
28	27	149	126	342	64	140	49	45	9.7	3.1	5.2	46
29	25	115	108	273	---	130	46	34	10	2.90	4.8	23
30	23	328	88	223	---	1230	40	30	11	2.8	2.2	15
31	23	---	74	189	---	1960	---	30	---	2.6	2.5	---
TOTAL	1152	2613	9642	13685	4066	12708	4828	7356	429.5	186.20	120.60	221.4
MEAN	37.16	87.10	311.0	441.5	145.2	409.9	160.9	237.3	14.32	6.006	3.890	7.380
MAX	189	829	1710	2930	297	2890	1440	1750	39	12	13	56
MIN	14	13	74	43	64	55	40	27	4.3	2.6	1.7	1.3
CFSM	0.57	1.33	4.74	6.73	2.21	6.25	2.45	3.62	0.22	0.09	0.06	0.11
IN.	0.65	1.48	5.47	7.76	2.31	7.21	2.74	4.17	0.24	0.11	0.07	0.13

e Estimated

03578000 ELK RIVER NEAR PELHAM, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2002, BY WATER YEAR (WY)

MEAN	42.67	115.6	210.3	247.9	262.4	283.9	221.6	140.7	43.29	34.49	29.18	25.37
MAX	341	562	475	679	601	707	522	362	178	118	168	174
(WY)	1976	1958	1973	1974	1956	1973	1977	1984	1961	1972	2001	1979
MIN	1.92	2.24	18.2	31.5	67.3	103	50.2	18.8	7.24	3.66	2.39	1.69
(WY)	1979	1957	1964	1981	1968	1985	1986	1987	1982	1954	1980	1954

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

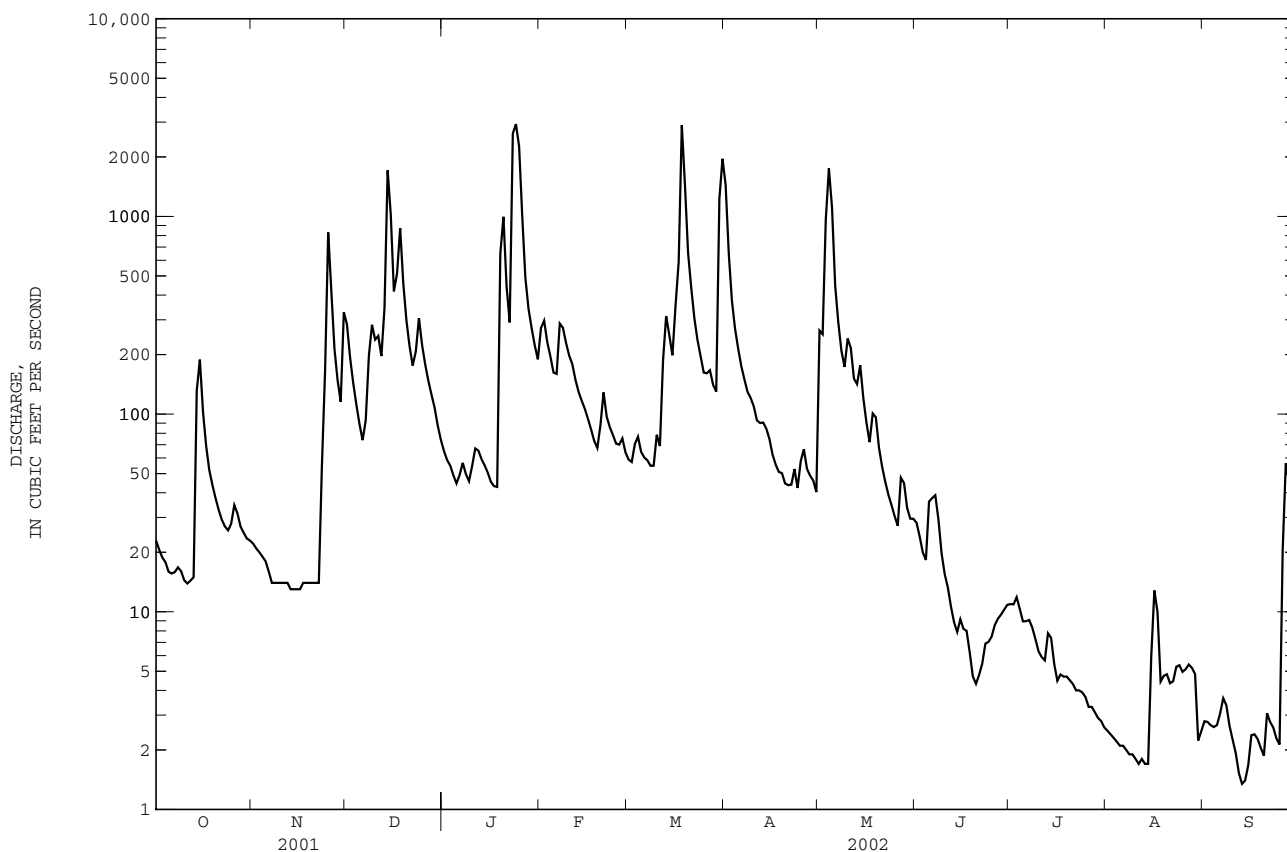
FOR 2002 WATER YEAR

WATER YEARS 1952 - 2002

ANNUAL TOTAL	54613.0	57007.70	138.0
ANNUAL MEAN	149.6	156.2	235
HIGHEST ANNUAL MEAN			61.3
LOWEST ANNUAL MEAN			1.0
HIGHEST DAILY MEAN	1890	2930	8800
LOWEST DAILY MEAN	6.9	1.3	1.0
ANNUAL SEVEN-DAY MINIMUM	7.6	1.8	1.2
MAXIMUM PEAK FLOW		5180	15800
MAXIMUM PEAK STAGE		11.97	a14.08
INSTANTANEOUS LOW FLOW		1.1	b1.0
ANNUAL RUNOFF (CFSM)	2.28	2.38	2.10
ANNUAL RUNOFF (INCHES)	30.97	32.33	28.59
10 PERCENT EXCEEDS	367	306	305
50 PERCENT EXCEEDS	52	45	53
90 PERCENT EXCEEDS	13	2.8	4.1

a Previous datum.

b Also occurred Sept. 28.



03579040 SPRING CREEK OFF SPRING CREEK ROAD AT AEDC NEAR MANCHESTER, TN

LOCATION.--Lat 35°18'16", long 86°07'13", Franklin County, Hydrologic Unit 06030003, on left downstream side of bridge, on Reservoir Road, 3.7 mi north of Estill Springs, 1.5 mi west-northwest of Elk River Dam, Woods Reservoir.

DRAINAGE AREA.--9.51 mi².

PERIOD OF RECORD.--February 2002 to September 2002. Occasional low-flow measurements, water year 1991.

GAGE.--Data logger.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 642 ft³/s, Mar. 18, gage height, 6.03 ft; minimum discharge, 6.9 ft³/s, on several days, gage height, 2.83 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR FEBRUARY 2002 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e15	12	75	20	11	9.3	8.2	7.4
2	---	---	---	---	e15	12	36	20	11	9.3	8.2	7.4
3	---	---	---	---	e14	12	26	61	11	9.4	8.1	7.3
4	---	---	---	---	e14	12	21	183	10	9.4	7.9	7.2
5	---	---	---	---	14	11	18	40	10	9.2	7.7	7.2
6	---	---	---	---	14	11	16	25	10	9.1	7.8	7.2
7	---	---	---	---	17	11	15	20	10	9.6	7.7	7.1
8	---	---	---	---	17	11	15	17	10	9.4	7.7	7.2
9	---	---	---	---	15	11	14	16	9.9	9.3	7.6	7.1
10	---	---	---	---	15	11	14	16	9.9	9.2	7.7	7.2
11	---	---	---	---	14	11	13	15	9.9	9.3	7.6	7.3
12	---	---	---	---	14	12	13	14	9.8	9.2	7.6	7.4
13	---	---	---	---	13	11	12	14	9.9	9.3	7.7	7.4
14	---	---	---	---	13	12	12	14	10	9.1	7.8	7.5
15	---	---	---	---	14	12	12	13	10	9.0	8.8	7.7
16	---	---	---	---	14	13	12	13	10	9.0	8.0	7.8
17	---	---	---	---	13	28	11	13	10	8.9	7.9	7.8
18	---	---	---	---	13	310	11	12	9.9	9.0	7.8	7.9
19	---	---	---	---	13	57	11	12	9.8	9.0	7.9	7.8
20	---	---	---	---	13	35	11	12	9.7	8.9	7.7	8.4
21	---	---	---	---	13	27	11	12	9.6	8.9	7.6	8.1
22	---	---	---	---	13	21	10	12	9.5	8.8	7.4	8.2
23	---	---	---	---	12	18	10	11	9.7	8.8	7.4	7.9
24	---	---	---	---	12	16	10	11	9.7	8.5	7.5	7.8
25	---	---	---	---	12	15	9.8	11	9.8	8.4	7.4	8.7
26	---	---	---	---	12	17	9.7	11	9.8	8.4	7.3	9.7
27	---	---	---	---	12	17	9.6	11	9.7	8.3	7.3	10
28	---	---	---	---	12	15	9.6	11	9.7	8.3	8.2	8.5
29	---	---	---	---	---	15	9.5	11	9.5	8.2	7.6	8.2
30	---	---	---	---	---	89	9.6	11	9.5	8.2	7.4	8.1
31	---	---	---	---	---	221	---	11	---	8.3	7.4	---
TOTAL	---	---	---	---	382	1086	466.8	673	298.3	277.0	239.9	234.5
MEAN	---	---	---	---	13.64	35.03	15.56	21.71	9.943	8.935	7.739	7.817
MAX	---	---	---	---	17	310	75	183	11	9.6	8.8	10
MIN	---	---	---	---	12	11	9.5	11	9.5	8.2	7.3	7.1
CFSM	---	---	---	---	1.43	3.68	1.64	2.28	1.05	0.94	0.81	0.82
IN.	---	---	---	---	1.49	4.25	1.83	2.63	1.17	1.08	0.94	0.92

e Estimated

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03584020 RICHLAND CREEK AT HWY 64 NEAR PULASKI, TN

LOCATION.--Lat 35°12'39", long 87°06'01", Giles County, Hydrologic Unit 06030004, bridge on Highway 64, 4.1 miles west of Pulaski.

DRAINAGE AREA.--366 mi².

PERIOD OF RECORD.--April 27, 1934 to September 30, 1975 published as "near Pulaski", February 2001 to current year.

GAGE.--Data collection platform and pressure sensor. Datum of gage is 637.29 ft above NGVD of 1929. April 27, 1934 to September 30, 1975, recording at gage at site 1,200 ft upstream at datum 5.25 ft higher.

REMARKS.--Records good, except for estimated discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,630 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	1200	5,620	16.74	Mar 18	1730	14,000	22.21
Nov 30	1030	10,600	20.55	Mar 31	2215	13,800	22.13
Dec 14	1400	4,730	15.60	May 4	1900	5,580	16.85
Jan 23	2100	*40,900	*27.86				

Minimum discharge, 27 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	159	3280	529	e1240	359	9640	589	169	325	72	49
2	98	153	1750	483	1180	352	3590	522	150	195	69	46
3	95	145	1270	445	1030	351	1690	1680	138	136	64	43
4	91	136	1000	400	935	322	1700	4510	129	111	56	40
5	89	131	825	367	802	301	1330	3320	135	94	52	37
6	92	126	705	421	836	290	1080	1850	143	85	49	35
7	91	122	715	428	1070	283	e938	1300	130	75	46	35
8	88	119	1380	370	1070	276	e845	950	122	67	43	33
9	85	116	2250	343	1040	292	e742	746	113	61	41	31
10	83	113	1750	329	1000	304	629	639	105	73	38	31
11	82	112	1650	319	913	277	548	575	99	461	37	30
12	155	110	1450	298	819	1310	545	464	95	150	37	28
13	473	108	2470	286	715	2270	489	516	130	179	36	28
14	4990	106	4290	275	674	1680	449	546	169	266	39	28
15	2460	104	3100	259	620	1280	418	415	140	189	77	29
16	1340	103	2030	236	576	1150	392	356	113	176	92	44
17	963	102	2120	222	524	6960	e366	322	105	132	148	47
18	760	100	2240	238	471	11900	e340	347	97	115	95	42
19	632	99	1750	1520	437	8020	311	303	91	114	78	53
20	533	100	1370	2400	629	3560	295	267	85	108	67	51
21	447	99	1120	1680	677	2650	284	246	78	95	66	62
22	373	97	958	1270	585	1990	275	230	73	87	62	71
23	325	98	1580	20100	535	1620	256	219	69	80	56	129
24	292	122	1660	24100	495	1360	245	207	68	178	60	76
25	335	186	1370	14700	460	1130	295	197	73	239	58	65
26	327	163	1160	5800	459	e1440	265	189	148	139	53	465
27	246	417	996	2940	419	1460	244	182	183	109	50	1570
28	208	795	872	2130	381	1160	242	179	161	92	49	730
29	190	2490	765	1670	---	1030	465	170	114	84	99	365
30	177	9440	655	1360	---	2020	354	164	105	77	66	258
31	167	---	582	1120	---	8950	---	205	---	76	54	---
TOTAL	16390	16271	49113	87038	20632	66347	29262	22405	3530	4368	1909	4551
MEAN	528.7	542.4	1584	2808	736.9	2140	975.4	722.7	117.7	140.9	61.58	151.7
MAX	4990	9440	4290	24100	1240	11900	9640	4510	183	461	148	1570
MIN	82	97	582	222	381	276	242	164	68	61	36	28
CFSM	1.44	1.48	4.33	7.67	2.01	5.85	2.67	1.97	0.32	0.38	0.17	0.41
IN.	1.67	1.65	4.99	8.85	2.10	6.74	2.97	2.28	0.36	0.44	0.19	0.46

e Estimated

03584020 RICHLAND CREEK AT HWY 64 NEAR PULASKI, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

MEAN	528.7	542.4	1584	2808	1714	1724	940.7	472.6	255.0	181.8	251.9	170.9
MAX	529	542	1584	2808	2690	2140	975	723	392	223	442	190
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2001	2001	2001	2001
MIN	529	542	1584	2808	737	1307	906	222	118	141	61.6	152
(WY)	2002	2002	2002	2002	2002	2001	2001	2001	2002	2002	2002	2002

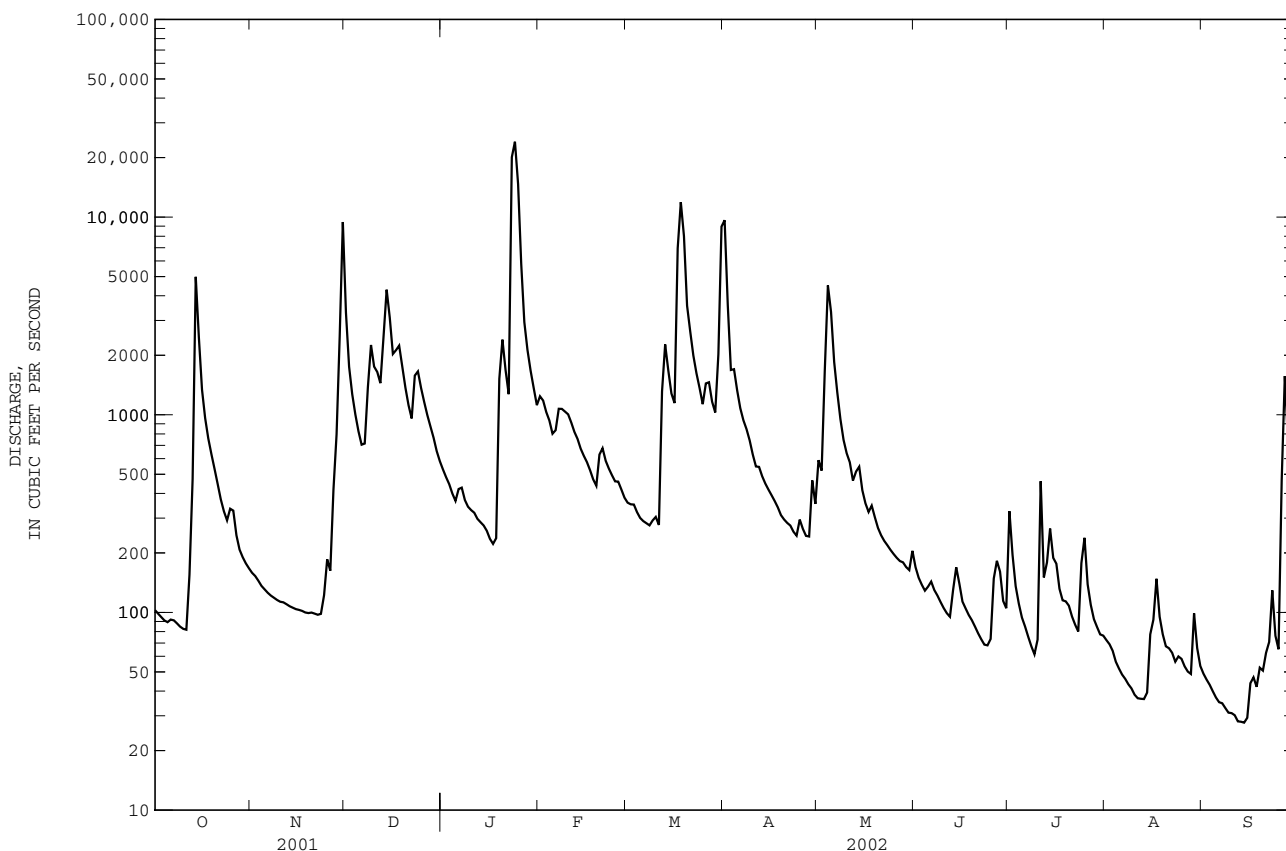
SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

ANNUAL TOTAL	321816											
ANNUAL MEAN	881.7									881.7		
HIGHEST ANNUAL MEAN										882		2002
LOWEST ANNUAL MEAN										882		2002
HIGHEST DAILY MEAN	24100	Jan 24								24100	Jan 24	2002
LOWEST DAILY MEAN	28	Sep 12								28	Sep 12	2002
ANNUAL SEVEN-DAY MINIMUM	29	Sep 9								29	Sep 9	2002
MAXIMUM PEAK FLOW	40900	Jan 23								40900	Jan 23	2002
MAXIMUM PEAK STAGE	27.86	Jan 23								27.86	Jan 23	2002
INSTANTANEOUS LOW FLOW	a27	Sep 13								a27	Sep 13	2002
ANNUAL RUNOFF (CFSM)	2.41									2.41		
ANNUAL RUNOFF (INCHES)	32.71									32.73		
10 PERCENT EXCEEDS	1720									1720		
50 PERCENT EXCEEDS	276									276		
90 PERCENT EXCEEDS	57									57		

a Also occurred Sept. 14.



TENNESSEE RIVER BASIN

03588500 SHOAL CREEK AT IRON CITY, TN

LOCATION.--Lat 35°01'27", long 87°34'44", Lawrence County, Hydrologic Unit 06030005, on right downstream bank at bridge, on county road, 400 ft downstream from Holly Creek, 1,350 ft upstream from Louisville and Nashville Railroad bridge, 1,350 ft northeast of Iron City Post Office, and at mile 22.3.

DRAINAGE AREA.--348 mi².

PERIOD OF RECORD.--July 1925 to September 1994, October 2000 to current year.

REVISED RECORDS.--WSP 823: Drainage area. WSP 1113: 1927(M). WSP 1436: 1926(M), 1927-29, 1930(M), 1932, 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 534.22 ft above NGVD of 1929. Prior to Feb. 25, 1931, nonrecording gage at railroad bridge, 1350 ft downstream at datum 0.85 ft. lower. Feb. 25, 1931, to Sept. 30, 1933, nonrecording gage at site 825 ft downstream and Oct. 1, 1933, to Sept. 30, 1957, water-stage recorder at site 750 ft downstream at datum 0.69 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height at present site and datum, 24.4 ft, from high water profile. Prior to January 1951, diurnal fluctuation at low flow caused by powerplant near Lawrenceburg. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREME OUTSIDE PERIOD OF RECORD.--Flood in March 1902 reached a stage about 3 ft higher than that of Mar. 21, 1955, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	1030	11,000	12.95	Jan 24	1830	23,900	18.11
Nov 30	0415	21,100	17.19	Mar 18	1545	11,000	12.96
Dec 14	1115	6,610	10.11	Mar 31	1945	14,200	14.50
Jan 23	2100	*47,400	*23.21				

Minimum discharge, 122 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	212	2590	527	964	516	5120	480	287	240	197	152
2	182	208	1530	492	873	503	2250	464	263	232	184	148
3	184	204	1110	475	814	491	1520	622	254	236	173	145
4	183	216	893	453	779	457	1140	2620	248	210	167	142
5	184	180	761	438	717	439	932	1610	308	197	161	138
6	208	184	674	483	756	430	806	1040	268	189	157	134
7	196	210	699	470	878	422	724	795	252	182	153	132
8	181	209	1610	429	880	416	677	650	244	178	149	132
9	178	204	2370	415	846	446	680	566	237	176	148	131
10	174	201	1540	409	824	460	598	551	232	187	148	131
11	181	199	1240	400	775	424	556	537	226	230	149	128
12	811	198	1050	395	723	1720	557	467	225	240	147	126
13	1080	194	3020	408	687	1720	524	458	229	473	144	124
14	7480	192	5430	368	643	1200	504	477	267	430	151	126
15	2420	192	2800	357	617	961	492	410	240	295	178	129
16	1330	190	1780	343	594	1190	467	382	224	269	198	133
17	891	189	1880	342	564	4470	448	374	224	237	259	169
18	638	187	1940	358	536	7420	436	414	217	217	219	158
19	523	187	1460	1230	519	3610	424	366	211	232	197	157
20	448	187	1130	1610	873	2220	412	343	209	222	182	149
21	393	184	943	1130	893	1770	402	328	204	213	213	196
22	352	183	835	871	764	1310	403	317	198	202	181	186
23	310	185	1260	19700	699	1100	381	311	196	202	167	162
24	300	217	1270	19800	652	964	371	302	207	210	187	149
25	366	318	1000	10400	613	858	391	297	208	236	215	146
26	311	237	898	3130	616	1000	363	290	251	224	181	488
27	277	1900	808	1990	567	960	358	294	335	198	169	2040
28	253	2200	741	1480	535	828	361	281	245	186	162	714
29	231	4970	647	1220	---	763	494	277	220	186	162	372
30	212	12400	588	1050	---	1200	396	274	214	204	160	292
31	205	---	548	921	---	8280	---	313	---	220	157	---
TOTAL	20872	26737	45045	72094	20201	48548	23187	16910	7143	7153	5415	7529
MEAN	673.3	891.2	1453	2326	721.5	1566	772.9	545.5	238.1	230.7	174.7	251.0
MAX	7480	12400	5430	19800	964	8280	5120	2620	335	473	259	2040
MIN	174	180	548	342	519	416	358	274	196	176	144	124
CFSM	1.93	2.56	4.18	6.68	2.07	4.50	2.22	1.57	0.68	0.66	0.50	0.72
IN.	2.23	2.86	4.82	7.71	2.16	5.19	2.48	1.81	0.76	0.76	0.58	0.80

03588500 SHOAL CREEK AT IRON CITY, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

MEAN	234.3	439.8	773.5	1052	1215	1312	988.1	725.0	378.4	297.2	222.4	223.5
MAX	1290	1894	2968	3604	3562	3626	2227	3425	1876	1131	615	1296
(WY)	1933	1978	1927	1974	1948	1975	1964	1991	1928	1932	1926	1979
MIN	69.4	123	165	170	273	373	222	169	118	105	94.8	64.8
(WY)	1932	1955	1964	1981	1941	1966	1986	1936	1988	1943	1988	1925

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

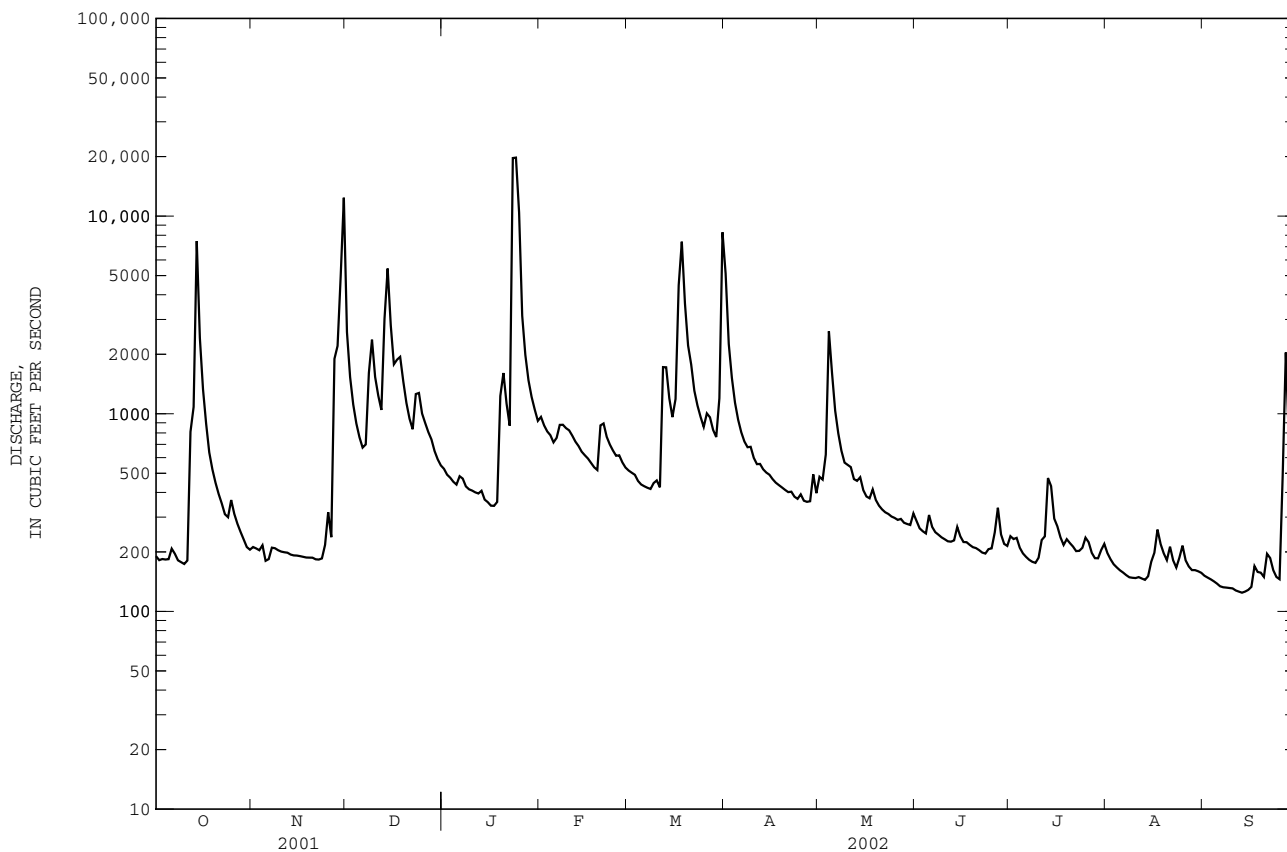
WATER YEARS 1925 - 2002

ANNUAL TOTAL	269241		300834									
ANNUAL MEAN	737.6		824.2							653.1		
HIGHEST ANNUAL MEAN										1178		1973
LOWEST ANNUAL MEAN										281		1981
HIGHEST DAILY MEAN	13500	Feb 17	19800	Jan 24	44000	Feb 13	1948					
LOWEST DAILY MEAN	168	Aug 26	124	Sep 13	41	Sep 22	1925					
ANNUAL SEVEN-DAY MINIMUM	186	Oct 5	128	Sep 9	55	Sep 3	1925					
MAXIMUM PEAK FLOW			47400	Jan 23	a132000	Mar 21	1955					
MAXIMUM PEAK STAGE			23.21	Jan 23	b27.25	Mar 21	1955					
INSTANTANEOUS LOW FLOW			c122	Sep 13	38	Aug 31	1943					
ANNUAL RUNOFF (CFSM)	2.12		2.37			1.88						
ANNUAL RUNOFF (INCHES)	28.78		32.16			25.50						
10 PERCENT EXCEEDS	1370		1520		1300							
50 PERCENT EXCEEDS	366		366		315							
90 PERCENT EXCEEDS	197		165		130							

a From rating curve extended above 50,000 ft³/s on basis of slope-area measurement.

b Site and datum then in use (see REMARKS).

c Also occurred Sept. 14.



TENNESSEE RIVER BASIN

03593500 TENNESSEE RIVER AT SAVANNAH, TN

LOCATION.--Lat 35°13'29", long 88°15'26", Hardin County, Hydrologic Unit 06040001, on right bank at upstream side of bridge on U.S. Highway 64, at Savannah, 16.8 mi downstream from Pickwick Landing Dam, and at mile 189.9.

DRAINAGE AREA.--33,140 mi² approximately.

PERIOD OF RECORD.--September 1930 to current year. Gage-height records collected in this vicinity since June 1905, are in reports of U.S. Weather Bureau.

REVISED RECORDS.--WSP 853: Drainage area. WSP 1306: 1936 (monthly runoff). WSP 2110: 1966. WRD TN-73-1: 1973-96. WRD TN- 74-1: 1973. WRD TN-85-1: 1985. WRD TN-90-1: 1989.

GAGE.--Data collection platform. Datum of gage is 350.06 ft above NGVD of 1929 (Levels by Tennessee Valley Authority). Prior to Oct. 1, 1992, at datum 50.06 ft lower, prior to Apr. 7, 1945, at datum 8.45 ft lower. Oct. 1, 1948 to Apr. 13, 1978 and Oct. 1, 1989 to present, auxiliary water-stage recorder on downstream end of lockwall in lower pool at Pickwick Landing Dam Apr. 13, 1978 to Sept. 30, 1989, auxiliary water-stage recorder over tailwater elevation well adjacent to the powerhouse which is an integral part of Pickwick Landing Dam, both sites 16.8 mi. upstream from base gage at same datum. Apr. 5, 1937, to Jan. 31, 1939, auxiliary nonrecording gage 4.0 mi downstream and Feb. 1, 1939, to Sept. 30, 1948, water-stage recorder 4.3 mi downstream from base gage at same datum.

REMARKS.--Records good, except for estimated discharges, which are fair. Slight regulation since 1924 by Wilson Lake and increasing regulation since 1936 as other reservoirs have been built above station ((see p. 262) and Water Resources Data for adjoining states). Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1867, 101.2 ft, Mar. 21, 1897, datum then in use, from floodmarks, discharge, 450,000 ft³/s, from rating curve extended above 320,000 ft³/s. Flood of Jan. 2, 1927, reached a stage of 92.7 ft datum then in use, discharge, 349,000 ft³/s. Minimum stage since 1905, 38.8 ft datum then in use, Sept. 8, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 299,000 ft³/s, Jan. 28; maximum gage height, 34.85 ft, Jan. 29; minimum daily discharge, 2,190 ft³/s, June 15, minimum gage height, 4.27 ft, Jan. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31700	34700	77200	16600	130000	28000	157000	13400	6860	14800	36600	12900
2	35900	36800	44600	41000	91100	13600	164000	19700	10700	25000	37800	16000
3	35600	42400	48100	46000	91600	33200	149000	43900	38500	28500	26900	20100
4	34000	42800	53700	55700	89000	42900	121000	124000	42200	6820	23100	32200
5	31600	35900	40800	29800	87900	40900	90800	144000	45100	13000	32700	16100
6	33000	38200	38600	10900	87400	35600	49900	145000	25300	9260	17100	e15100
7	14100	38000	38900	38000	87600	9580	53500	126000	2310	5850	26700	e14500
8	34300	36000	41800	39500	87400	10500	52900	111000	4040	18400	15600	e15000
9	33600	33100	61800	15300	55200	13400	43500	95700	2230	37800	15800	e27100
10	28200	31200	64900	15600	46400	12700	42700	74800	34200	28000	16000	e48400
11	26300	34100	50800	11500	43200	43000	35200	25100	19300	21000	15900	e41400
12	11300	36800	51900	11400	58900	19600	8770	34600	30800	15300	31000	e14500
13	20600	31300	71000	13300	55200	31100	6670	55600	28700	6290	30700	13600
14	33900	44700	115000	e25100	62500	9960	8070	37300	29300	14800	18400	16100
15	60500	35500	147000	e36600	52800	10600	15200	47700	2190	32600	18500	16300
16	45300	32700	166000	e31600	21500	11800	27800	57500	8610	32200	23600	13900
17	41700	10900	143000	27300	31000	38300	33400	55000	7900	23300	15000	13900
18	40200	11600	109000	13100	48100	103000	34200	32000	13800	37600	23900	19900
19	40200	26800	94400	18200	46300	156000	34300	8520	21800	8490	42400	40500
20	36900	40900	105000	55800	12200	175000	19900	18700	29800	13000	48900	32300
21	42600	53400	97500	73400	22800	180000	16900	34300	15100	8040	31800	39600
22	40900	23400	86400	100000	10600	181000	36400	13900	8610	33100	34300	14100
23	37500	10700	63500	152000	15400	170000	9380	11500	4510	20700	35800	48600
24	37200	9370	59800	248000	14500	162000	16000	12000	11600	33700	15900	23700
25	30800	9580	65900	286000	15100	146000	15300	13800	36600	28300	16900	64900
26	34500	28400	78900	291000	35000	102000	9890	12000	31700	31400	25700	90200
27	39200	33600	77400	294000	54100	71500	8630	8700	28100	15900	30100	101000
28	34000	42200	60300	294000	41400	26800	8950	21400	7830	15600	19000	58500
29	42400	62500	47000	289000	---	36400	34800	30100	2330	31300	33100	17000
30	33000	119000	48800	274000	---	26500	5450	21500	7080	39500	26900	33400
31	33900	---	64300	228000	---	92000	---	26500	---	25500	15600	---
TOTAL	1074900	1066550	2313300	3081700	1494200	2032940	1309510	1475220	557100	675050	801700	930800
MEAN	34670	35550	74620	99410	53360	65580	43650	47590	18570	21780	25860	31030
MAX	60500	119000	166000	294000	130000	181000	164000	145000	45100	39500	48900	101000
MIN	11300	9370	38600	10900	10600	9580	5450	8520	2190	5850	15000	12900

e Estimated

03593500 TENNESSEE RIVER AT SAVANNAH, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2002, BY WATER YEAR (WY)

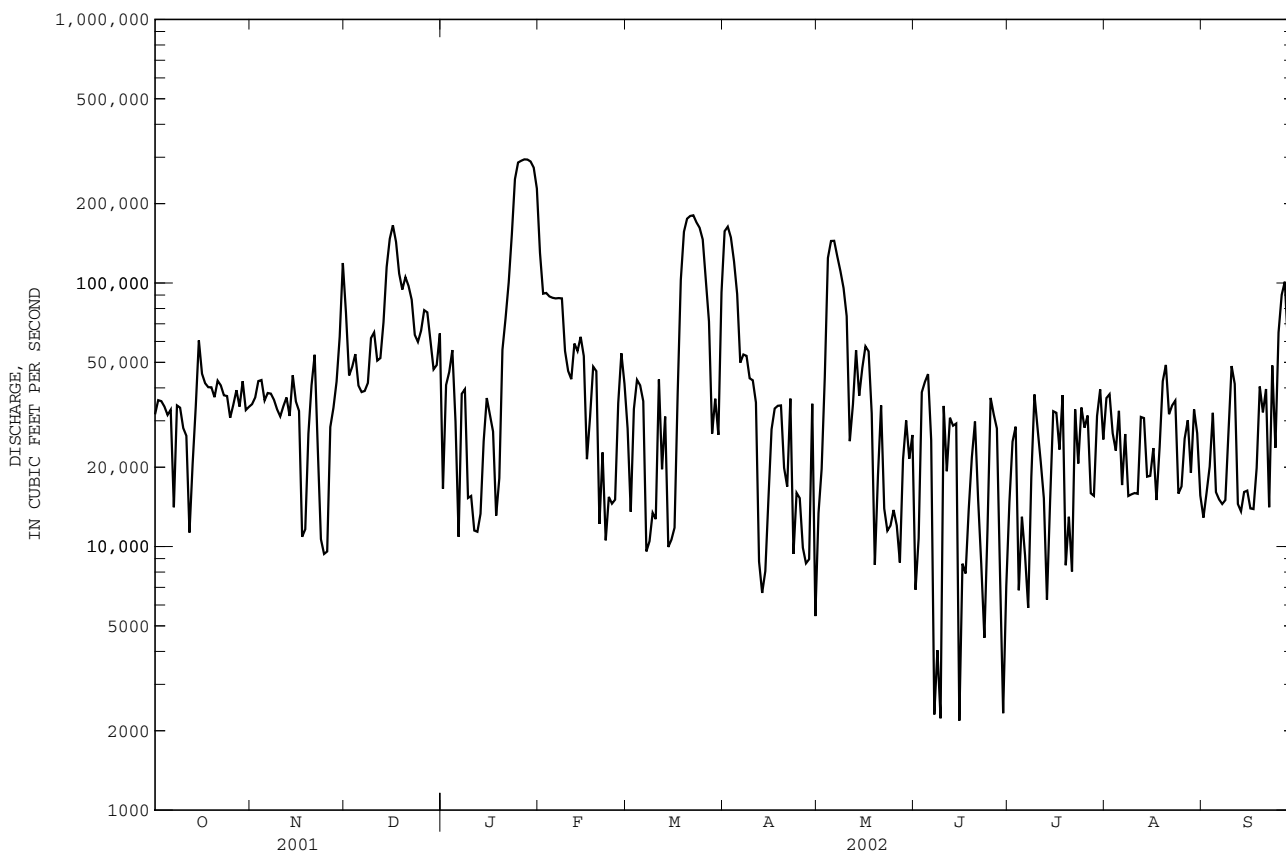
MEAN	36220	46730	71370	88430	92320	85260	55290	47350	40160	38050	37260	34550
MAX	97010	147000	160100	223100	228100	185600	172300	140400	112900	84810	64740	71700
(WY)	1990	1958	1992	1974	1957	1973	1994	1984	1997	1989	1967	1950
MIN	18820	20510	26850	23710	30610	19840	11150	8977	10490	12910	15910	15800
(WY)	1955	1954	1981	1986	2000	1988	1986	1988	1988	1988	1988	1968

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR *WATER YEARS 1946 - 2002

ANNUAL TOTAL	16030450	16812970	
ANNUAL MEAN	43920	46060	55940
HIGHEST ANNUAL MEAN			86550 1973
LOWEST ANNUAL MEAN			23090 1988
HIGHEST DAILY MEAN	170000 Feb 21	294000 Jan 27	495000 Mar 18 1973
LOWEST DAILY MEAN	7360 Apr 26	2190 Jun 15	60 Apr 23 1966
ANNUAL SEVEN-DAY MINIMUM	10400 May 20	13200 Jun 28	5890 May 20 1986
MAXIMUM PEAK FLOW			507000 Mar 18 1973
MAXIMUM PEAK STAGE			a96.11 Mar 20 1973
10 PERCENT EXCEEDS	79400	100000	107000
50 PERCENT EXCEEDS	36400	33100	42200
90 PERCENT EXCEEDS	10700	10700	21200

* Regulated period only.

a Datum then in use; see GAGE paragraph.



03595100 LITTLE DUCK RIVER SOUTHEAST OF MANCHESTER, TN

LOCATION.--Lat 35°27'44", long 86°03'54", Coffee County, Hydrologic Unit 06040002, on left downstream side of bridge on US Highway 41, 2 mi southeast of Manchester.

DRAINAGE AREA.--13.0 mi².

PERIOD OF RECORD.--February 2002 to September 2002. Occasional low-flow measurements, water year 1953-54, 1956-57, 1962, 1964-65, 1970.

GAGE.--Data logger and crest-stage gage.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 935 ft³/s, Mar. 18, gage height, 9.05 ft; minimum discharge, 0.50 ft³/s, Sept. 9, gage height, 3.15 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR FEBRUARY 2002 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	e8.7	4.8	232	75	5.0	2.0	1.7	1.2
2	---	---	---	---	e8.5	5.1	131	77	4.1	2.1	1.6	1.2
3	---	---	---	---	e8.3	6.1	82	155	3.6	1.8	1.4	1.1
4	---	---	---	---	e8.0	5.0	38	342	4.0	1.9	1.4	1.1
5	---	---	---	---	e7.8	4.0	24	142	3.7	1.8	1.3	1.0
6	---	---	---	---	e8.0	3.8	18	71	3.8	1.8	1.4	1.0
7	---	---	---	---	e12	3.5	13	32	3.2	1.8	1.3	0.94
8	---	---	---	---	e9.0	3.2	10	21	2.9	1.8	1.3	0.99
9	---	---	---	---	e8.5	4.2	9.2	16	2.8	1.8	1.2	0.90
10	---	---	---	---	e8.0	4.4	8.0	15	2.7	1.8	1.3	0.91
11	---	---	---	---	e9.0	4.2	7.4	15	3.9	1.8	1.2	0.83
12	---	---	---	---	e13	21	7.0	11	2.6	1.8	1.2	0.88
13	---	---	---	---	24	36	6.9	11	3.4	24	1.1	0.84
14	---	---	---	---	41	19	6.7	11	2.9	5.2	1.0	1.5
15	---	---	---	---	16	12	6.2	8.3	2.8	2.2	1.1	2.4
16	---	---	---	---	7.2	56	5.7	6.7	2.8	2.1	2.9	1.3
17	---	---	---	---	5.9	323	5.3	8.3	2.7	1.9	1.3	1.1
18	---	---	---	---	4.9	642	4.8	16	2.6	1.9	3.3	3.6
19	---	---	---	---	4.7	215	4.5	9.7	2.5	2.0	2.3	1.4
20	---	---	---	---	18	132	4.3	6.6	2.5	1.8	1.9	6.5
21	---	---	---	---	23	89	4.0	5.4	2.4	7.1	1.7	3.9
22	---	---	---	---	14	44	5.6	4.7	2.5	2.1	1.6	6.1
23	---	---	---	---	8.6	29	5.4	4.2	2.5	15	1.8	2.6
24	---	---	---	---	6.7	22	5.7	3.8	2.3	4.9	1.6	1.8
25	---	---	---	---	5.3	18	11	3.8	2.4	2.2	1.5	6.1
26	---	---	---	---	5.8	42	9.9	4.6	3.6	2.0	3.4	47
27	---	---	---	---	5.2	42	7.0	3.7	2.4	1.8	1.5	39
28	---	---	---	---	5.0	28	5.8	3.5	2.2	1.8	1.4	7.0
29	---	---	---	---	---	55	4.9	5.0	2.2	1.7	1.3	2.9
30	---	---	---	---	---	439	4.3	8.1	2.1	1.7	1.2	2.3
31	---	---	---	---	---	402	---	6.2	---	1.6	1.2	---
TOTAL	---	---	---	---	304.1	2714.3	687.6	1102.6	89.1	105.2	49.4	149.39
MEAN	---	---	---	---	10.86	87.56	22.92	35.57	2.970	3.394	1.594	4.980
MAX	---	---	---	---	41	642	232	342	5.0	24	3.4	47
MIN	---	---	---	---	4.7	3.2	4.0	3.5	2.1	1.6	1.0	0.83
CFSM	---	---	---	---	0.84	6.74	1.76	2.74	0.23	0.26	0.12	0.38
IN.	---	---	---	---	0.87	7.77	1.97	3.16	0.25	0.30	0.14	0.43

e Estimated

03596100 CRUMPTON CREEK AT RUTLEDGE FALLS, TN

LOCATION.--Lat 35°25'20", long 86°08'11", Coffee County, Hydrologic Unit 06040002, on right downstream of county highway bridge, 30 ft below Wiley Creek.

DRAINAGE AREA.--28.1 mi².

PERIOD OF RECORD.--March 2002 to September 2002. Occasional low-flow measurements, water years 1953-54, 1956-57, 1962, 1964-65, 1970, water-quality 1975.

GAGE.--Data logger and crest-stage gage.

REMARKS.--Records fair except for periods of estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,720 ft³/s, Mar. 31, gage height, 6.72 ft; minimum discharge, 4.3 ft³/s, July 6, 7, gage height, 3.71 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR MARCH 2002 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	e10	324	e9.5	12	6.6	6.0	6.0
2	---	---	---	---	---	e12	134	e90	12	5.6	6.0	6.0
3	---	---	---	---	---	e14	84	e200	12	5.6	5.8	6.0
4	---	---	---	---	---	e13	65	e470	11	5.6	5.6	6.1
5	---	---	---	---	---	e12	53	e180	11	5.6	5.6	6.1
6	---	---	---	---	---	e9.0	46	e80	11	5.5	5.6	6.0
7	---	---	---	---	---	e8.5	42	e55	9.7	5.0	5.4	6.1
8	---	---	---	---	---	e9.0	39	e47	9.4	5.4	5.4	5.9
9	---	---	---	---	---	e14.0	35	e42	9.1	5.3	5.3	5.8
10	---	---	---	---	---	e13	33	e36	8.8	5.3	5.4	6.1
11	---	---	---	---	---	e20	30	e33	8.5	5.1	5.3	6.2
12	---	---	---	---	---	e37	29	e31	8.5	5.1	5.0	6.2
13	---	---	---	---	---	e53	28	e29	9.3	18	5.2	6.4
14	---	---	---	---	---	e32	27	e26	8.8	9.8	5.3	6.8
15	---	---	---	---	---	e23	25	e23	8.3	7.0	5.2	7.4
16	---	---	---	---	---	e100	23	e21	7.9	6.1	5.7	7.2
17	---	---	---	---	---	e400	22	e30	7.9	6.8	5.6	7.0
18	---	---	---	---	---	e1000	21	e50	7.6	6.5	13	11
19	---	---	---	---	---	400	20	e30	7.4	6.5	5.9	6.6
20	---	---	---	---	---	218	18	e20	7.4	6.5	5.7	11
21	---	---	---	---	---	140	e19	e17	7.4	8.2	5.7	10
22	---	---	---	---	---	94	e24	e14	7.1	6.7	5.7	7.2
23	---	---	---	---	---	68	e21	e12	7.1	10	6.3	6.4
24	---	---	---	---	---	51	e22	e11	7.3	7.0	6.2	6.0
25	---	---	---	---	---	40	e32	e9.0	7.4	6.3	6.1	8.5
26	---	---	---	---	---	56	e25	e38	8.1	6.3	6.1	24
27	---	---	---	---	---	50	e20	e16	7.7	6.2	5.8	53
28	---	---	---	---	---	42	e16	e14	7.4	6.1	5.8	11
29	---	---	---	---	---	51	e12	e13	7.3	6.1	6.1	9.3
30	---	---	---	---	---	492	e10	e12	7.2	6.0	6.0	8.4
31	---	---	---	---	---	858	---	13	---	5.9	5.9	---
TOTAL	---	---	---	---	---	4339.5	1299	1671.5	261.6	207.7	183.7	279.7
MEAN	---	---	---	---	---	140.0	43.30	53.92	8.720	6.700	5.926	9.323
MAX	---	---	---	---	---	1000	324	470	12	18	13	53
MIN	---	---	---	---	---	8.5	10	9.0	7.1	5.0	5.0	5.8
CFSM	---	---	---	---	---	4.98	1.54	1.92	0.31	0.24	0.21	0.33
IN.	---	---	---	---	---	5.74	1.72	2.21	0.35	0.27	0.24	0.37

e Estimated

03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN

LOCATION.--Lat 35°30'42", long 86°19'26", Bedford County, Hydrologic Unit 06040002, on right bank 0.3 mi above L&N Railroad bridge, 0.6 mi below Knob Creek, 1.2 mi southeast of Wartrace, and at mile 3.2.

DRAINAGE AREA.--85.5 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 769.30 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1715	*17,700	*19.89	Mar 30	0045	5,760	13.36
Jan 24	1200	8,820	15.79	Mar 30	1345	3,590	11.21
Mar 17	1300	10,800	17.05	Mar 31	1315	5,290	12.94
Mar 18	0845	7,930	15.10				

Minimum daily discharge, 2.8 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	13	112	41	242	41	1160	142	32	13	6.8	6.1
2	6.1	13	67	38	189	42	510	498	29	26	6.2	5.7
3	6.0	13	48	35	152	44	331	571	27	18	5.8	5.3
4	5.8	12	39	32	126	38	240	1380	25	27	5.3	4.8
5	6.0	11	33	31	101	35	189	538	24	16	5.1	4.3
6	13	11	29	40	122	35	155	305	64	13	4.6	3.9
7	18	11	32	48	182	33	133	197	36	11	4.1	3.6
8	12	11	245	43	172	33	120	135	28	11	3.9	3.3
9	9.4	11	276	42	150	35	111	105	24	10	3.5	3.3
10	8.1	11	207	46	133	35	95	94	22	9.9	3.5	3.3
11	7.2	11	275	52	112	32	87	85	20	9.9	3.5	3.1
12	9.0	11	174	54	97	113	81	70	19	22	3.7	2.9
13	16	11	267	53	86	122	76	914	19	71	3.1	2.8
14	364	10	612	49	75	96	71	466	22	34	3.0	2.8
15	148	10	296	45	69	81	68	214	20	19	3.1	2.9
16	66	10	180	40	64	89	61	138	18	14	4.4	4.2
17	42	10	247	38	58	6450	58	148	18	12	8.3	6.2
18	30	10	251	41	52	4340	54	275	17	10	11	12
19	24	10	176	515	50	956	52	149	16	11	15	22
20	21	12	123	407	83	533	50	108	14	12	14	13
21	18	13	93	250	80	375	49	86	14	9.7	9.7	129
22	16	12	77	162	64	265	48	71	13	8.9	7.2	94
23	15	12	236	9480	58	212	43	62	13	11	6.2	45
24	15	17	210	6260	54	174	43	56	13	11	7.8	21
25	24	36	145	1980	51	142	48	50	13	11	15	16
26	23	24	110	571	52	352	41	47	16	9.2	17	244
27	18	19	90	352	47	247	40	44	14	8.9	12	640
28	15	19	75	246	43	192	40	40	13	8.1	9.4	186
29	14	37	62	184	---	472	38	39	13	7.2	9.8	90
30	13	269	52	141	---	2620	35	40	12	7.6	8.5	56
31	13	---	46	115	---	2910	---	37	---	7.0	7.0	---
TOTAL	1001.9	680	4885	21431	2764	21144	4127	7104	628	469.4	227.5	1636.5
MEAN	32.32	22.67	157.6	691.3	98.71	682.1	137.6	229.2	20.93	15.14	7.339	54.55
MAX	364	269	612	9480	242	6450	1160	1380	64	71	17	640
MIN	5.8	10	29	31	43	32	35	37	12	7.0	3.0	2.8
CFSM	0.38	0.27	1.84	8.09	1.15	7.98	1.61	2.68	0.24	0.18	0.09	0.64
IN.	0.44	0.30	2.13	9.32	1.20	9.20	1.80	3.09	0.27	0.20	0.10	0.71

03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

MEAN	58.31	100.4	271.2	314.2	298.7	358.3	200.8	121.2	72.22	45.26	32.10	39.63
MAX	285	296	825	691	793	726	503	261	294	127	92.1	240
(WY)	1996	1997	1991	2002	1991	1994	1994	1997	1997	1999	1996	1992
MIN	5.09	10.7	22.1	28.4	91.4	191	60.2	28.5	19.4	9.06	7.33	3.90
(WY)	2000	2000	2000	2000	2000	2001	1999	2001	2000	2000	1999	1999

SUMMARY STATISTICS

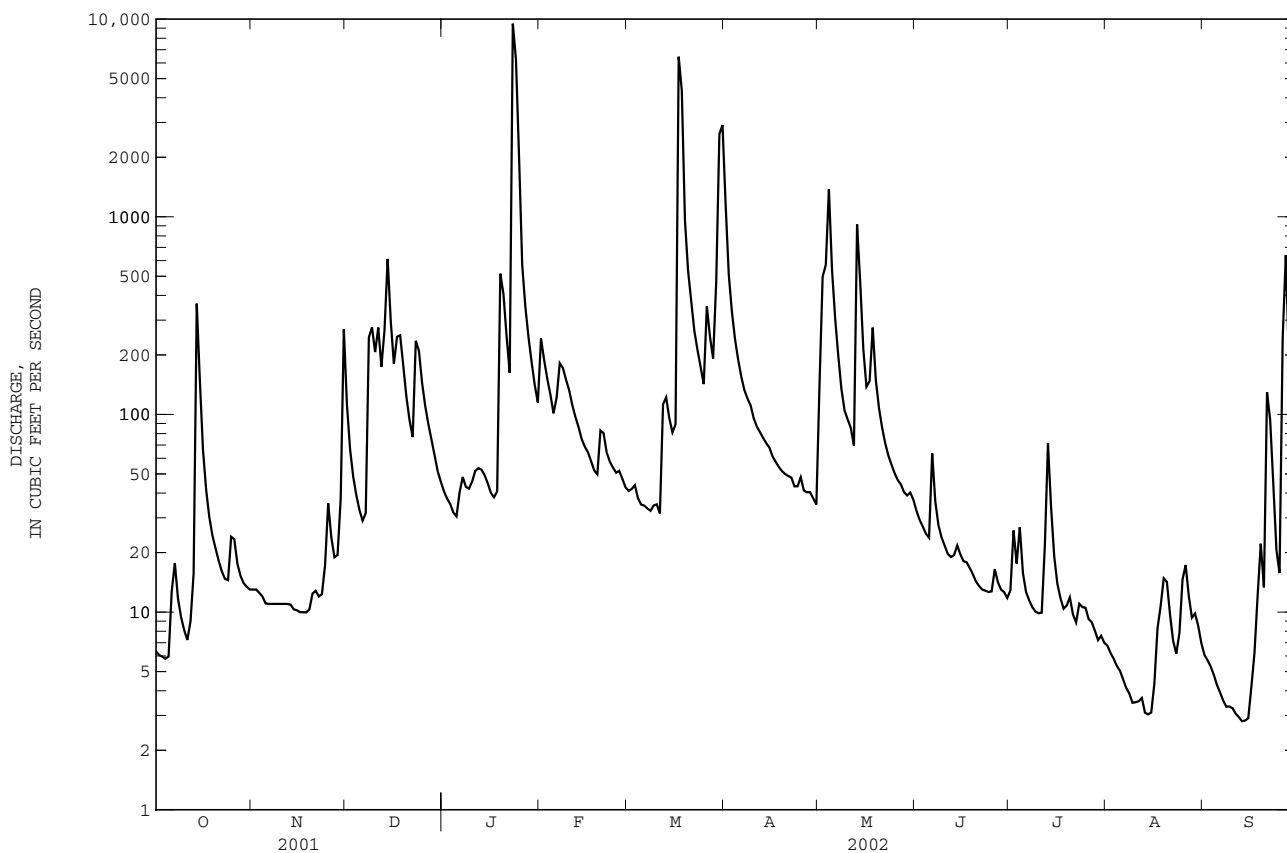
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1990 - 2002

ANNUAL TOTAL	41501.9	66098.3	
ANNUAL MEAN	113.7	181.1	158.9
HIGHEST ANNUAL MEAN			233
LOWEST ANNUAL MEAN			79.7
HIGHEST DAILY MEAN	3520	Feb 16	9480
LOWEST DAILY MEAN	5.8	Oct 4	2.8
ANNUAL SEVEN-DAY MINIMUM	6.6	Sep 29	3.0
MAXIMUM PEAK FLOW			17700
MAXIMUM PEAK STAGE			19.89
INSTANTANEOUS LOW FLOW			2.6
ANNUAL RUNOFF (CFSM)	1.33	2.12	1.86
ANNUAL RUNOFF (INCHES)	18.06	28.76	25.26
10 PERCENT EXCEEDS	244	257	300
50 PERCENT EXCEEDS	31	37	51
90 PERCENT EXCEEDS	10	6.2	8.7

a Also occurred Aug. 14, Sept. 13, 15.



03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN

LOCATION.--Lat 35°31'38", long 86°20'25", Bedford County, Hydrologic Unit 06040002, on right bank 300 ft below county road bridge, 0.4 mi upstream from Louisville and Nashville Railroad bridge, 0.4 mi west of Wartrace, and at mile 2.3.

DRAINAGE AREA.--35.7 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Data collection platform and crest-stage gage. Datum of gage is 781.66 ft above NGVD of 1929.

REMARKS.--Records good except for estimated discharge, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1300	*6,790	*15.15	Mar 18	0800	3,040	11.32
Jan 24	1145	3,780	12.35	Mar 30	0130	2,830	10.95
Mar 17	0730	6,460	14.92	Mar 31	1445	2,710	10.73

Minimum discharge, 0.00 ft³/s, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.66	1.6	33	9.5	157	11	312	42	3.0	0.30	0.49	0.63
2	0.65	1.6	14	9.0	72	11	130	440	2.5	0.29	0.43	0.47
3	0.69	1.7	8.0	8.5	51	12	75	355	2.2	0.27	0.34	0.40
4	0.61	1.7	5.5	7.7	40	9.8	52	593	1.9	0.69	0.30	0.30
5	0.59	1.7	4.0	7.4	31	9.3	39	132	1.6	0.72	0.24	0.21
6	1.0	1.8	3.3	12	53	8.9	31	71	1.8	0.44	0.19	0.16
7	2.7	1.8	4.0	16	90	8.6	26	e52	1.7	0.29	0.15	0.12
8	2.2	1.8	211	14	73	8.3	22	e40	1.5	0.22	0.13	0.10
9	1.8	1.7	119	14	55	9.4	21	e28	1.3	0.21	0.11	0.08
10	2.0	1.8	88	14	46	10	18	26	1.1	0.16	0.09	0.07
11	1.5	1.9	112	16	36	8.7	15	24	0.94	0.15	0.07	0.05
12	1.8	1.8	50	17	30	98	14	18	0.79	0.15	0.05	0.03
13	3.2	1.8	144	16	25	73	13	353	0.81	1.2	0.03	0.0
14	192	1.8	380	15	21	45	12	96	0.85	2.1	0.00	0.00
15	25	1.8	98	14	19	33	11	43	0.80	1.4	0.00	0.00
16	7.9	1.9	49	13	17	40	10	26	0.79	0.83	0.00	0.02
17	4.6	2.1	131	12	15	3010	9.3	46	0.72	0.62	0.03	0.0
18	3.2	2.1	93	14	13	1470	8.5	76	0.62	0.49	0.09	0.70
19	2.5	2.0	49	408	13	256	7.8	30	0.59	0.37	3.0	4.9
20	2.1	2.1	30	166	37	209	7.4	19	0.56	0.28	1.6	8.2
21	1.8	2.1	20	84	28	122	7.2	14	0.47	0.32	0.86	119
22	1.7	2.0	16	56	20	73	6.7	11	0.42	5.4	0.59	19
23	1.8	2.0	191	3800	17	55	5.9	8.9	0.32	14	0.47	9.6
24	1.7	3.0	85	2350	15	43	6.0	7.4	0.32	9.7	8.3	5.6
25	4.3	4.5	45	691	14	34	8.1	6.3	0.28	3.3	3.6	4.6
26	3.2	3.0	31	195	15	197	6.0	5.4	0.31	2.7	6.9	229
27	2.2	2.6	23	105	13	71	5.6	4.9	0.28	1.5	2.8	786
28	2.1	2.7	18	70	11	49	5.3	4.3	0.26	1.1	1.7	79
29	2.0	16	15	53	---	199	4.9	3.7	0.26	0.80	1.3	38
30	1.9	181	12	42	---	1220	4.4	4.7	0.31	0.65	1.0	24
31	1.8	---	11	33	---	1340	---	3.7	---	0.57	0.76	---
TOTAL	281.20	255.4	2092.8	8282.1	1027	8744.0	894.1	2584.3	29.30	51.22	35.62	1330.24
MEAN	9.071	8.513	67.51	267.2	36.68	282.1	29.80	83.36	0.977	1.652	1.149	44.34
MAX	192	181	380	3800	157	3010	312	593	3.0	14	8.3	786
MIN	0.59	1.6	3.3	7.4	11	8.3	4.4	3.7	0.26	0.15	0.00	0.00
CFSM	0.25	0.24	1.89	7.48	1.03	7.90	0.83	2.34	0.03	0.05	0.03	1.24
IN.	0.29	0.27	2.18	8.63	1.07	9.11	0.93	2.69	0.03	0.05	0.04	1.39

e Estimated

03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2002, BY WATER YEAR (WY)

MEAN	23.32	49.06	122.8	138.3	127.6	146.9	78.61	41.38	23.26	15.95	20.67	23.44
MAX	109	172	350	289	326	311	215	114	143	40.7	79.5	167
(WY)	1996	1997	1991	1999	1991	1994	2000	1997	1997	1999	1992	1992
MIN	0.014	0.46	7.46	10.3	36.8	77.9	11.9	2.23	1.57	0.24	0.012	0.000
(WY)	2000	2000	2000	2000	2002	2001	1999	1992	1990	2000	1991	1999

SUMMARY STATISTICS

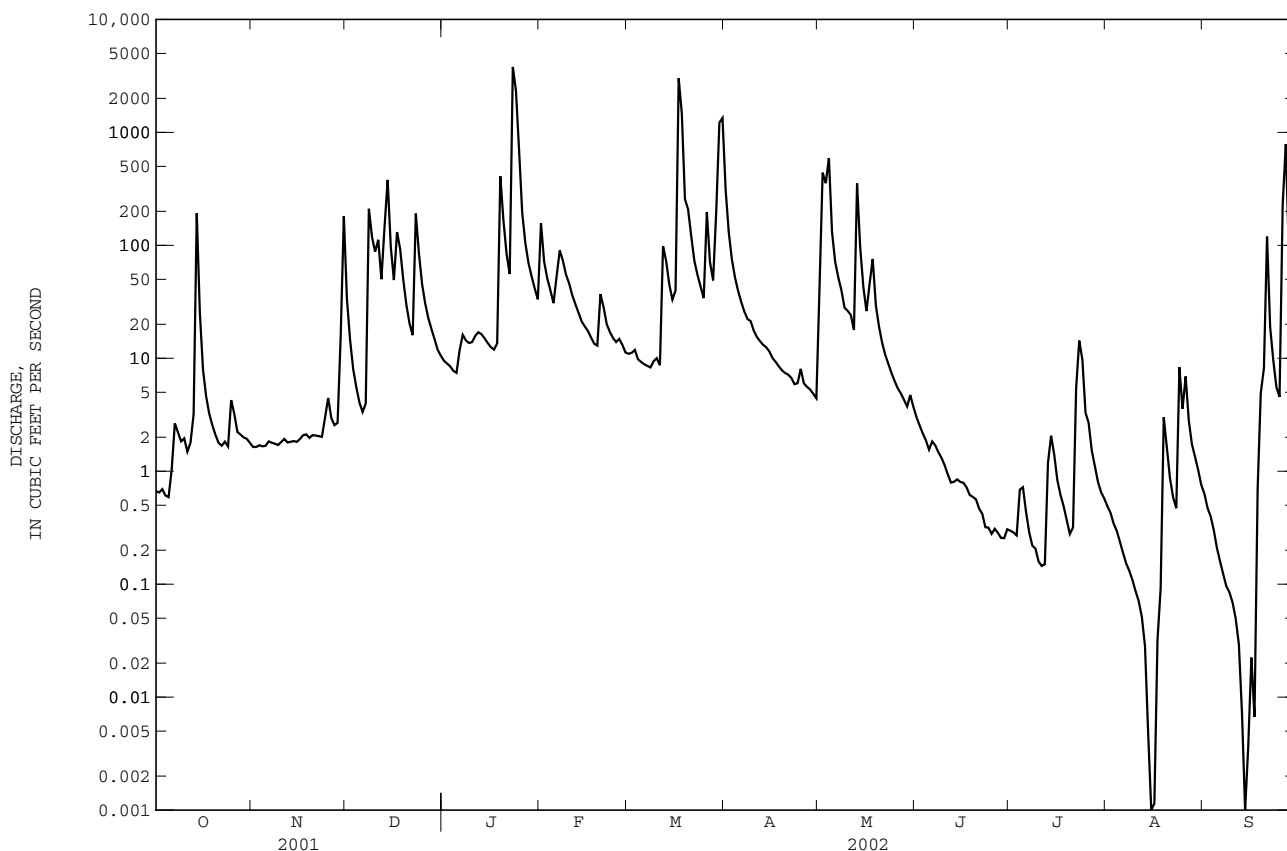
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1989 - 2002

ANNUAL TOTAL	19879.66	25607.28	
ANNUAL MEAN	54.46	70.16	67.42
HIGHEST ANNUAL MEAN			97.2
LOWEST ANNUAL MEAN			36.2
HIGHEST DAILY MEAN	1840	Feb 16	3800
LOWEST DAILY MEAN	0.57	Sep 18	0.00
ANNUAL SEVEN-DAY MINIMUM	0.68	Sep 29	0.01
MAXIMUM PEAK FLOW			6790
MAXIMUM PEAK STAGE			15.15
INSTANTANEOUS LOW FLOW			a0.00
ANNUAL RUNOFF (CFSM)	1.53	1.97	a0.00
ANNUAL RUNOFF (INCHES)	20.71	26.68	25.66
10 PERCENT EXCEEDS	116	101	121
50 PERCENT EXCEEDS	7.9	6.3	14
90 PERCENT EXCEEDS	1.7	0.28	0.21

a No flow many days most years.



TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN

LOCATION.--Lat 35°28'51", long 86°27'45", Bedford County, Hydrologic Unit 06040002, on right bank 125 ft upstream from U.S. Highway 231 bridge, one block west of the southwest corner of the public square, and at mile 221.4.

DRAINAGE AREA.--425 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1991 to current year, discharge for gage height of 12.00 ft and below only. Continuous stage records were collected by Tennessee Valley Authority from December 1981 to September 1991.

GAGE.--Data collection platform. Datum of gage is 680.00 ft above NGVD of 1929. Prior to Oct. 10, 1991 at datum 10.00 ft higher.

REMARKS.--Records good except for estimated discharges, which are fair. Flow regulated by Normandy Reservoir (station 03596460) since January 1976.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 33.13 ft, Mar. 28, 1994; minimum discharge, 129 ft³/s, May 20, 1992; minimum daily discharge, 125 ft³/s, July 30, 2001.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined, maximum gage height, unknown Jan. 25; minimum discharge, 132 ft³/s, April 30; minimum daily discharge, 137 ft³/s, April 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	375	---	283	---	187	---	517	219	191	181	164
2	173	374	562	272	---	186	---	---	216	202	175	161
3	170	376	485	312	---	194	---	---	208	198	175	162
4	169	371	445	302	---	182	---	---	203	197	177	162
5	168	368	327	257	662	180	---	---	205	186	176	160
6	191	367	226	276	---	177	---	---	---	179	174	164
7	184	370	237	301	---	176	---	---	244	189	172	167
8	179	371	---	290	---	173	---	---	171	188	171	165
9	175	373	---	283	811	e175	---	657	221	201	164	163
10	174	371	---	232	746	e178	284	584	214	190	170	162
11	172	370	---	230	684	e176	244	420	204	186	174	163
12	182	364	---	235	622	321	227	366	200	189	259	162
13	207	362	---	233	590	460	213	---	200	255	176	162
14	---	---	---	225	552	331	200	---	203	258	180	164
15	---	357	---	234	503	283	199	590	200	200	186	169
16	417	357	---	225	307	348	187	e430	197	196	183	183
17	319	354	---	219	285	---	177	e400	193	192	200	171
18	274	354	---	228	269	---	170	---	190	175	194	186
19	252	354	---	---	263	---	163	546	188	184	236	201
20	238	354	---	---	333	---	161	286	185	190	180	209
21	230	351	683	---	383	---	157	247	184	194	168	432
22	220	353	619	---	320	---	165	245	186	221	160	371
23	213	357	---	---	287	---	153	284	192	212	169	314
24	212	388	---	---	257	---	154	270	282	210	172	197
25	275	448	e660	---	247	---	165	186	188	182	187	185
26	399	---	e650	---	250	---	150	172	187	190	198	---
27	386	---	637	---	236	---	144	170	193	186	187	---
28	382	---	589	---	195	---	143	198	192	179	155	---
29	379	---	557	---	---	---	137	250	189	175	168	540
30	376	---	493	---	---	---	140	320	199	175	171	424
31	374	---	313	---	---	---	---	228	---	179	167	---
TOTAL	---	---	---	---	---	---	---	---	---	6049	5605	---
MEAN	---	---	---	---	---	---	---	---	---	195.1	180.8	---
MAX	---	---	---	---	---	---	---	---	---	258	259	---
MIN	---	---	---	---	---	---	---	---	---	175	155	---

e Estimated

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1991 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1991 to current year.

DISSOLVED OXYGEN: October 1991 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1991.

REMARKS.--Records for water temperature are good and dissolved oxygen is fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 30.1°C, July 30, 31, 1999; minimum, 0.1°C, Feb. 4, 5, 6, 1996.

DISSOLVED OXYGEN: Maximum, 17.2, mg/L, Jan. 16, 2002; minimum, 5.7 mg/L, June 12, 1999.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 29.2°C, July 29; minimum, 3.3°C, Jan. 3.

DISSOLVED OXYGEN: Maximum, 17.2 mg/L, Jan. 16; minimum, 6.4 mg/L, July 17.

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	18.7	17.8	18.3	15.4	14.3	14.9	14.0	12.7	13.2	5.5	4.1	4.9
2	19.4	17.9	18.5	16.6	15.4	16.1	12.7	12.3	12.5	4.1	3.4	3.8
3	20.1	18.0	18.8	17.4	16.5	17.0	12.5	11.9	12.2	3.7	3.3	3.5
4	20.4	18.4	19.2	16.9	15.5	16.4	12.7	12.0	12.3	4.1	3.4	3.7
5	20.2	19.0	19.5	15.5	14.6	15.2	13.2	12.7	12.9	4.0	3.4	3.7
6	19.5	18.9	19.2	14.9	13.9	14.5	13.7	12.8	13.2	4.5	3.8	4.1
7	18.9	17.8	18.3	14.4	13.7	13.9	14.1	13.3	13.7	5.0	4.5	4.8
8	17.8	16.5	17.0	14.5	13.7	14.0	15.0	14.1	14.6	5.2	4.5	4.8
9	17.0	15.8	16.3	15.0	14.0	14.5	14.8	13.0	13.8	5.3	4.4	4.9
10	17.8	16.1	16.8	14.8	13.7	14.3	13.0	11.8	12.2	6.9	5.2	6.0
11	18.3	17.0	17.6	14.2	13.6	13.8	12.6	11.9	12.2	8.2	6.8	7.6
12	19.1	18.3	18.7	14.2	13.4	13.8	13.7	12.6	13.2	8.5	7.7	8.0
13	19.8	19.1	19.5	13.8	13.3	13.5	14.3	13.7	14.2	7.7	6.7	7.2
14	20.1	18.8	19.6	14.1	13.3	13.6	14.3	14.1	14.2	6.8	6.3	6.5
15	18.8	17.5	18.0	13.9	13.2	13.5	14.3	13.4	13.6	7.0	6.0	6.4
16	17.5	16.3	16.9	13.7	13.0	13.3	13.8	13.4	13.5	6.6	5.8	6.1
17	16.3	14.5	15.6	13.9	13.0	13.4	14.2	13.8	14.0	6.3	5.8	6.1
18	14.8	13.8	14.3	14.4	13.5	14.0	14.2	13.0	13.6	7.0	6.1	6.6
19	14.8	13.5	14.1	14.5	14.0	14.2	13.0	11.9	12.2	7.0	6.2	6.6
20	15.8	13.9	14.7	14.3	13.2	13.9	11.9	10.3	11.2	8.2	6.4	7.5
21	16.6	14.7	15.5	13.2	11.4	12.5	10.3	9.6	9.8	8.8	8.2	8.5
22	17.4	15.6	16.3	11.7	11.2	11.4	10.1	9.3	9.7	8.6	7.5	7.8
23	18.5	16.6	17.4	12.9	11.5	12.3	11.1	10.1	10.6	11.8	8.0	9.7
24	19.4	17.9	18.6	14.6	12.9	13.9	10.4	9.0	9.5	12.6	11.5	12.3
25	19.4	18.1	18.8	15.4	14.6	14.9	9.0	7.6	8.3	11.5	9.2	10
26	18.1	15.7	16.9	14.6	13.7	14.0	7.6	6.9	7.1	9.3	8.2	8.8
27	15.7	13.8	14.8	15.4	13.9	14.9	7.1	6.6	6.9	9.6	8.6	9.1
28	13.8	13.0	13.4	15.8	15.4	15.5	7.7	6.9	7.3	10.0	8.8	9.4
29	13.8	13.0	13.3	15.9	15.6	15.7	8.0	7.6	7.8	10.3	9.8	10.0
30	14.3	13.4	13.8	15.8	14.0	14.9	7.6	6.4	6.9	11.1	10.1	10.6
31	14.7	13.9	14.3	---	---	---	6.4	5.5	6.0	11.3	10.2	10.8
MONTH	20.4	13.0	16.9	17.4	11.2	14.3	15.0	5.5	11.4	12.6	3.3	7.1

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

WATER TEMPERATURE, in (DEGREES C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.4	10.5	11.0	5.8	4.9	5.5	13.8	12.4	12.9	19.4	18.2	18.8
2	10.5	9.6	9.9	6.8	5.6	6.0	14.4	12.7	13.5	18.5	18.1	18.3
3	9.6	8.9	9.2	7.1	6.6	6.9	14.2	12.8	13.3	18.4	15.5	16.9
4	8.9	8.5	8.7	7.7	6.6	7.0	13.0	11.6	12.4	15.9	15.0	15.3
5	8.5	6.8	7.5	7.1	5.9	6.5	12.8	12.0	12.5	16.9	15.7	16.2
6	6.8	6.4	6.6	7.4	6.0	6.8	12.8	12.1	12.5	17.2	16.5	16.8
7	7.2	6.8	7.0	9.3	7.3	8.2	13.4	12.4	12.8	18.6	17.0	17.6
8	7.6	6.8	7.2	11.1	8.9	10	14.4	13.4	13.7	19.2	18.6	18.9
9	8.6	7.4	8.0	11.8	11.0	11.4	14.6	14.1	14.4	19.9	19.1	19.5
10	9.7	8.6	9.2	12.0	11.2	11.6	15.4	14.0	14.7	19.5	17.9	18.6
11	9.5	8.9	9.2	11.6	10.6	11.1	17.7	15.0	16.3	18.6	17.5	18.0
12	9.1	8.3	8.6	10.9	10.3	10.5	18.0	16.7	17.4	20.8	18.6	19.8
13	8.6	8.0	8.4	10.7	10.5	10.6	18.9	17.6	18.2	21.2	18.7	20.6
14	8.5	7.7	8.1	11.9	10.6	11.2	19.1	18.1	18.5	18.7	16.9	17.4
15	8.5	7.7	8.1	14.1	11.6	13.1	20.9	18.1	19.3	17.4	16.3	16.9
16	9.6	8.5	8.9	15.3	13.9	14.8	22.2	18.9	20.3	18.8	17.4	17.4
17	9.9	8.9	9.3	15.1	12.6	13.3	23.2	20.3	21.6	19.7	---	---
18	9.7	8.4	9.0	13.7	12.8	13.3	24.3	21.4	22.7	19.7	17.1	18.6
19	8.9	8.2	8.6	12.8	12.1	12.3	24.2	22.1	23.0	17.1	16.0	16.3
20	10.0	8.5	9.3	12.4	12.1	12.2	24.6	22.7	23.5	16.9	16.0	16.4
21	11.5	10.0	10.8	12.5	11.7	12.0	25.1	23.1	24.0	17.1	15.7	16.4
22	10.9	9.5	10.5	12.0	10.2	10.8	24.1	22.8	23.4	17.8	15.5	16.5
23	9.5	8.1	9.0	11.3	9.4	10.4	23.2	21.9	22.5	18.4	16.1	17.1
24	9.1	7.8	8.3	12.3	10.2	11.2	21.9	20.4	21.1	19.8	17.1	18.5
25	9.6	7.9	8.8	13.3	11.2	12.1	20.4	19.3	19.7	21.6	18.6	19.9
26	9.7	9.0	9.4	13.3	12.4	12.8	19.3	18.2	18.6	21.3	19.8	20.5
27	9.0	7.0	8.1	12.7	10.9	11.5	18.2	17.3	17.8	22.7	20.5	21.5
28	7.0	5.7	6.3	12.4	10.8	11.4	19.2	17.1	17.9	23.3	21.4	22.2
29	---	---	---	13.2	12.4	13.0	19.2	17.2	18.1	23.9	22.0	22.8
30	---	---	---	---	---	---	19.8	18.8	19.3	23.3	22.1	22.7
31	---	---	---	---	---	---	---	---	---	23.8	21.8	22.7
MONTH	11.5	5.7	8.7	15.3	4.9	10.6	25.1	11.6	17.9	23.9	15.0	18.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	25.2	22.4	23.7	27.0	25.6	26.1	28.1	27.1	27.6	26.8	25.5	26.0
2	26.0	23.6	24.7	26.5	25.4	25.9	27.8	27.0	27.4	26.6	25.8	26.2
3	26.8	24.4	25.5	26.5	25.4	26.0	28.6	27.1	27.7	27.2	25.9	26.4
4	27.6	25.0	26.2	26.8	25.4	26.1	28.4	27.2	27.7	26.8	26.0	26.4
5	27.7	25.3	26.3	27.2	25.6	26.5	28.8	27.3	27.9	27.1	26.1	26.6
6	26.1	23.2	24.7	27.6	26.2	26.9	28.2	27.5	27.8	27.2	26.2	26.6
7	23.5	22.7	23.0	28.5	26.7	27.6	27.9	27.0	27.3	26.9	26.0	26.3
8	24.9	22.6	23.6	28.6	26.9	27.6	27.1	26.3	26.6	26.2	25.5	25.9
9	25.1	23.2	24.1	27.5	26.7	27.0	26.8	25.6	26.1	26.2	25.5	25.9
10	26.1	23.7	24.8	27.4	26.2	26.6	27.0	25.5	26.1	26.0	25.3	25.7
11	26.1	24.1	25.0	26.6	25.7	26.2	27.1	25.6	26.2	25.7	25.2	25.5
12	26.5	24.3	25.2	26.4	25.8	26.0	27.2	25.5	26.1	25.8	24.9	25.3
13	25.8	24.5	25.0	26.0	25.0	25.6	27.0	25.3	26.0	25.5	24.8	25.1
14	24.9	24.2	24.6	25.4	24.4	24.7	26.6	25.5	26.0	25.2	24.7	24.9
15	24.2	23.2	23.6	26.3	24.3	25.2	26.9	25.8	26.3	25.3	24.7	25.0
16	23.2	22.4	22.7	27.6	25.0	26.0	26.7	25.9	26.2	25.4	24.8	25.1
17	22.8	21.8	22.2	27.8	25.8	26.7	26.4	25.7	26.0	25.8	25.0	25.3
18	23.4	21.3	22.2	27.4	26.4	26.9	26.8	25.5	25.9	25.8	25.1	25.4
19	24.6	21.9	23.2	27.1	26.3	26.7	27.2	25.6	26.3	25.9	25.1	25.4
20	25.5	23.1	24.3	27.6	26.1	26.7	27.2	25.8	26.5	26.3	25.1	25.5
21	25.9	24.0	25.0	27.4	26.0	26.7	27.5	26.1	26.8	25.3	24.4	24.9
22	26.3	24.4	25.3	28.1	26.4	26.9	28.5	26.7	27.3	24.5	23.2	24.0
23	26.2	24.8	25.5	27.3	25.9	26.4	28.8	26.9	27.6	23.3	22.5	22.9
24	26.2	24.8	25.3	26.6	25.4	25.9	28.2	27.2	27.6	22.5	21.8	22.1
25	25.1	24.3	24.6	27.1	25.4	26.1	27.7	27.0	27.3	22.0	21.2	21.4
26	26.1	24.2	25.0	27.0	25.7	26.2	27.0	26.4	26.7	21.2	20.5	20.8
27	26.2	24.5	25.2	28.0	26.0	26.8	26.7	25.9	26.2	20.9	20.3	20.7
28	26.9	24.9	25.6	28.7	26.3	27.2	26.0	25.4	25.6	21.2	20.2	20.7
29	27.0	25.1	25.8	29.2	26.9	27.8	25.6	25.0	25.3	21.8	21.0	21.4
30	26.7	25.5	26.0	28.6	27.4	27.9	25.8	24.9	25.4	22.5	21.8	22.1
31	---	---	---	28.7	27.5	27.9	26.2	25.1	25.6	---	---	---
MONTH	27.7	21.3	24.6	29.2	24.3	26.5	28.8	24.9	26.6	27.2	20.2	24.5

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.2	9.3	9.7	10.4	10.0	10.2	10.6	10.0	10.3	---	---	---
2	10.1	9.4	9.7	10.1	9.7	10	10.8	10.6	10.7	---	---	---
3	10.2	9.5	9.8	9.8	9.6	9.7	11.1	10.8	10.9	14.0	13.8	13.9
4	10.0	9.6	9.8	9.9	9.7	9.8	11.0	10.7	10.9	13.9	13.5	13.8
5	10.2	9.4	9.8	10.3	9.9	10.1	10.9	10.5	10.7	14.0	13.5	13.7
6	9.9	9.6	9.7	10.8	10.1	10.3	10.7	10.3	10.5	13.6	13.1	13.4
7	10.3	9.8	9.9	11.2	10.3	10.5	10.5	10.1	10.3	13.3	13.0	13.1
8	10.3	9.9	10.2	11.0	10.3	10.5	10.1	9.6	9.9	13.5	13.0	13.2
9	10.5	10.2	10.3	11.1	10.2	10.4	10.5	9.7	10.0	15.5	13.1	13.7
10	10.2	9.9	10.1	10.9	10.1	10.3	10.9	10.5	10.7	14.2	13.2	13.6
11	10.0	9.5	9.8	10.6	10.3	10.4	10.7	10.6	10.7	15.4	12.9	13.4
12	9.6	9.2	9.4	11.4	10.3	10.6	10.6	10.4	10.5	14.5	12.8	13.2
13	9.3	8.9	9.1	11.1	10.4	10.6	10.4	9.8	10.1	16.1	13.0	13.8
14	9.1	8.3	8.6	11.3	10.2	10.5	9.9	9.4	9.6	14.8	13.6	13.9
15	9.9	8.7	9.4	10.5	10.0	10.3	10.5	9.8	10.2	16.9	13.8	14.4
16	10.3	9.8	10.1	10.3	10.1	10.2	10.6	10.4	10.5	17.2	14.0	14.6
17	10.7	10.2	10.5	10.3	10.0	10.2	10.4	9.6	10.1	15.1	14.2	14.5
18	10.9	10.5	10.7	10.2	9.8	10.0	10.5	9.6	10.1	16.1	14.0	14.6
19	10.6	10.3	10.5	11.2	9.8	10.3	11.0	10.5	10.8	14.9	13.0	13.7
20	11.3	10.2	10.5	12.5	11.2	12.1	11.7	11.0	11.3	13.2	12.9	13.0
21	10.3	10.0	10.1	12.6	12.2	12.4	11.9	11.7	11.8	13.2	12.9	13.1
22	10.0	9.6	9.8	12.7	11.9	12.4	12.0	11.7	11.9	13.8	13.2	13.5
23	9.7	9.2	9.5	11.9	10.3	11.2	11.7	11.0	11.3	13.6	10.3	11.8
24	9.8	8.8	9.1	10.6	---	---	11.8	11.1	11.4	10.8	10.1	10.3
25	9.0	8.8	8.9	---	---	---	12.4	11.8	12.1	12.6	10.8	11.7
26	9.8	8.8	9.3	10.4	---	---	12.7	12.4	12.6	13.3	12.6	13.1
27	10.2	9.7	10	10.3	9.8	10	12.8	12.5	12.7	13.2	13.0	13.1
28	10.5	10.2	10.4	9.8	9.7	9.8	---	---	---	13.2	12.9	13.1
29	10.6	10.3	10.5	9.7	9.6	9.7	---	---	---	12.9	12.8	12.9
30	10.9	10.4	10.5	10.0	9.3	9.5	---	---	---	12.8	12.6	12.7
31	10.6	10.3	10.4	---	---	---	---	---	---	12.8	12.5	12.7
MONTH	11.3	8.3	9.9	12.7	9.3	10.4	12.8	9.4	10.8	17.2	10.1	13.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.7	12.2	12.5	13.6	13.0	13.3	11.3	10.9	11.2	9.8	9.3	9.6
2	13.0	12.6	12.8	13.3	13.0	13.1	11.2	10.9	11.0	9.7	8.7	9.4
3	13.3	13.0	13.2	13.1	12.7	12.9	11.3	10.9	11.1	10.1	8.3	9.3
4	13.6	13.3	13.5	13.5	12.6	12.9	11.6	11.2	11.4	10.4	10.1	10.2
5	14.3	13.6	14.0	14.4	13.0	13.6	11.6	11.3	11.5	10.7	10.3	10.5
6	14.4	14.2	14.3	14.4	13.5	13.9	11.5	11.3	11.4	10.5	10.3	10.4
7	14.2	14.0	14.1	14.3	13.1	13.6	11.4	11.2	11.3	10.5	10.3	10.4
8	14.2	14.0	14.1	13.1	12.3	12.7	11.2	10.9	11.0	10.3	10.0	10.1
9	14.1	13.7	13.9	12.3	11.9	12.1	10.9	10.6	10.8	10.1	9.7	10
10	13.7	13.3	13.5	12.1	11.5	11.8	10.8	10.4	10.6	10.3	10.0	10.2
11	13.6	13.3	13.5	12.1	11.5	11.8	10.5	10.0	10.3	10.4	10.2	10.3
12	13.8	13.5	13.7	12.3	11.9	12.1	10.2	9.8	10.0	10.2	9.5	10
13	14.0	13.7	13.8	11.9	11.5	11.7	10.3	9.7	10	9.6	8.5	9.3
14	14.2	13.8	13.9	11.7	11.3	11.5	10.2	9.6	9.8	10.6	8.7	10.0
15	14.1	13.6	13.9	11.9	10.9	11.4	10.2	9.6	9.8	10.8	10.5	10.7
16	13.8	13.3	13.5	11.2	10.5	10.8	10.0	9.4	9.7	10.5	10.4	10.4
17	13.7	13.0	13.5	10.7	9.5	10.0	10.0	9.2	9.5	10.1	9.5	9.9
18	13.7	13.2	13.5	10.5	9.6	10	9.7	9.1	9.3	10.2	9.6	9.8
19	13.9	13.5	13.7	11.5	10.5	11.3	9.6	8.9	9.1	10.7	10.2	10.5
20	13.6	13.5	13.6	11.6	11.4	11.5	9.3	8.6	8.9	11.0	10.3	10.6
21	---	---	---	12.0	11.6	11.8	9.2	8.5	8.8	11.3	10.4	10.7
22	---	---	---	12.3	11.7	12.0	9.3	8.6	8.8	11.2	10.4	10.8
23	---	---	---	12.3	11.9	12.1	9.5	8.6	8.8	11.2	10.3	10.8
24	---	---	---	12.2	11.6	11.9	9.2	8.6	8.8	10.9	9.8	10.4
25	---	---	---	11.8	11.3	11.6	9.8	8.8	9.3	10.6	9.7	10.1
26	---	---	---	11.4	10.8	11.2	9.7	9.3	9.4	10.3	9.5	9.8
27	---	---	---	11.9	11.0	11.6	9.9	9.4	9.6	10.1	9.1	9.6
28	---	---	---	12.0	11.7	11.9	10.1	9.6	9.8	9.8	8.9	9.2
29	---	---	---	11.7	11.3	11.4	10.3	9.6	9.9	10.1	8.7	9.1
30	---	---	---	---	---	---	9.9	9.4	9.6	10.2	8.7	9.0
31	---	---	---	---	---	---	---	---	---	9.7	8.7	9.0
MONTH	14.4	12.2	13.6	14.4	9.5	12.0	11.6	8.5	10.0	11.3	8.3	10.0

TENNESSEE RIVER BASIN

03597860 DUCK RIVER AT SHELBYVILLE, TN--Continued

OXYGEN DISSOLVED, in (MG/L), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	9.9	8.3	8.8	---	---	---	8.1	7.6	7.9	7.8	7.2	7.6
2	9.4	8.0	8.4	---	---	---	8.1	7.8	7.9	8.1	7.6	7.9
3	9.5	7.9	8.3	7.8	7.5	7.7	8.3	7.8	8.0	8.3	7.9	8.1
4	9.1	7.8	8.1	7.8	7.5	7.7	8.2	7.7	7.9	8.5	8.1	8.2
5	8.7	7.7	8.0	7.8	7.5	7.7	8.0	7.6	7.8	8.5	8.1	8.3
6	8.4	7.8	8.1	7.8	7.5	7.6	7.9	7.5	7.7	8.3	8.2	8.3
7	8.4	8.0	8.1	7.8	7.5	7.6	8.1	7.6	7.8	8.5	8.0	8.2
8	8.7	8.1	8.3	7.8	7.5	7.6	8.3	7.8	8.1	8.5	7.6	8.2
9	8.9	8.0	8.3	7.7	7.4	7.6	8.4	8.0	8.2	8.2	7.8	8.1
10	8.5	8.0	8.2	7.7	7.4	7.6	8.6	7.6	8.3	8.2	7.5	7.9
11	8.4	7.5	8.0	7.8	7.5	7.6	8.4	8.1	8.2	8.2	7.5	7.8
12	8.3	7.2	7.8	7.8	7.4	7.6	8.4	7.8	8.2	8.6	7.4	7.7
13	8.1	7.3	7.7	7.8	7.4	7.6	8.2	7.8	8.0	8.1	7.3	7.6
14	8.2	7.3	7.6	8.1	7.6	7.9	8.4	6.8	8.0	7.9	7.5	7.6
15	8.7	7.4	7.9	8.0	7.3	7.8	8.3	7.9	8.1	7.8	7.3	7.6
16	8.4	7.9	8.1	7.4	6.8	7.2	8.3	7.9	8.1	7.6	7.4	7.5
17	8.6	8.1	8.2	7.8	6.4	7.3	8.3	7.9	8.1	7.7	7.4	7.5
18	8.9	8.0	8.3	7.8	7.2	7.6	8.3	7.6	8.1	7.5	7.1	7.3
19	8.8	7.8	8.2	8.0	7.5	7.8	8.2	7.3	7.9	7.7	7.2	7.5
20	8.2	7.5	7.9	8.0	7.8	7.9	8.4	7.8	8.1	7.7	7.3	7.4
21	8.1	7.2	7.6	8.0	7.8	7.9	8.4	8.1	8.2	7.6	7.3	7.5
22	7.8	7.1	7.3	7.9	7.5	7.8	8.4	8.1	8.2	7.9	7.6	7.7
23	7.9	7.1	7.4	7.9	7.4	7.6	8.3	7.9	8.2	8.2	7.9	8.0
24	8.0	7.3	7.5	8.1	7.6	7.8	8.3	8.1	8.2	8.2	8.0	8.1
25	7.9	7.4	7.6	8.0	7.6	7.8	8.3	8.0	8.1	8.4	8.1	8.3
26	8.0	7.5	7.6	7.9	7.5	7.7	8.4	8.1	8.2	8.7	8.3	8.5
27	8.0	7.5	7.6	7.8	7.5	7.6	8.4	8.1	8.2	8.5	7.4	7.8
28	8.0	7.6	7.8	7.8	6.9	7.5	8.4	8.1	8.2	9.2	8.5	8.9
29	8.1	7.7	7.8	7.6	6.8	7.3	8.3	8.1	8.2	9.0	8.7	8.9
30	---	---	---	7.4	6.8	7.1	8.3	7.8	8.1	8.8	8.6	8.7
31	---	---	---	7.6	7.2	7.4	8.0	7.7	7.9	---	---	---
MONTH	9.9	7.1	7.9	8.1	6.4	7.6	8.6	6.8	8.1	9.2	7.1	8.0

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TENNESSEE RIVER BASIN

03598000 DUCK RIVER NEAR SHELBYVILLE, TN

LOCATION.--Lat 35°28'49", long 86°29'57", Bedford County, Hydrologic Unit 06040002, on right bank 150 ft downstream from Sims Bridge, 2.1 mi upstream from Sugar Creek, 2.2 mi west of Shelbyville, 2.9 mi downstream from Flat Creek, and at mile 216.2.

DRAINAGE AREA.--481 mi².

PERIOD OF RECORD.--October 1933 to current year. Prior to April 1934, monthly discharge only, published in WSP 1306.

REVISED RECORDS.--WSP 783: 1934. WSP 853: Drainage area.

GAGE.--Data collection platform. Datum of gage is 683.51 ft above NGVD of 1929. Prior to Sept. 2, 1966, at datum 2.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Maximum discharge prior to regulation, 62,900 ft³/s, Feb. 13, 1948, gage height, 38.40 ft, present datum, from floodmarks, from rating curve extended above 35,000 ft³/s on basis of slope-area measurement of peak flow. Prior to 1948, diurnal fluctuation caused by powerplant upstream. Flow regulated by Normandy Reservoir (station 03596460) since January 1976. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 39.6 ft present datum, discharge, about 70,000 ft³/s, from high-water profile by Tennessee Valley Authority. Flood in March 1902 reached a stage about 2.0 ft higher than that in March 1929, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft³/s, at 0630 hours Feb. 17, gage height 22.07 ft; minimum discharge, 133 ft³/s, Aug. 28, 29; minimum daily, 162 ft³/s, Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	401	1010	297	3460	241	7200	758	269	220	213	176
2	205	402	688	279	1610	236	4230	623	263	226	205	175
3	197	403	563	324	1370	245	3430	2770	253	231	205	177
4	190	399	501	320	1070	229	2310	5860	244	230	206	179
5	183	396	407	270	756	219	1550	4240	246	220	204	177
6	215	392	266	296	788	215	1420	3400	910	207	201	180
7	205	392	281	327	1100	212	1340	2610	359	217	198	183
8	197	391	721	315	1060	207	1280	1150	238	216	197	183
9	190	389	1390	305	957	215	1030	802	278	256	188	180
10	184	387	1070	260	882	221	417	718	273	228	194	178
11	180	389	1520	256	810	200	359	538	259	219	196	177
12	198	387	1350	259	734	407	338	473	250	229	289	177
13	218	385	2020	257	695	606	322	1000	251	317	193	179
14	2050	381	3950	245	650	449	309	1270	257	344	191	183
15	1170	378	2400	249	613	390	296	692	249	257	201	192
16	597	376	1720	239	420	493	277	536	239	237	197	216
17	422	375	2040	231	386	9240	264	496	232	232	228	203
18	350	375	2200	243	361	17300	253	937	228	208	214	220
19	310	375	1630	2130	345	8560	242	679	223	220	270	238
20	284	377	939	2320	422	5290	238	369	221	224	195	243
21	268	374	779	1910	491	4580	231	317	217	226	176	529
22	253	374	692	1550	413	2960	244	302	220	258	165	463
23	243	377	1090	12200	374	2500	223	351	222	281	174	391
24	239	406	1230	24200	334	2250	226	337	330	261	179	232
25	296	496	927	18100	318	2050	240	246	227	223	195	207
26	443	516	791	8150	319	2390	217	217	223	225	205	764
27	425	934	705	5730	305	2020	204	213	223	221	201	3140
28	418	775	645	4920	254	1410	202	238	218	208	162	1140
29	414	1020	601	4380	---	1220	197	284	210	202	174	706
30	408	2200	541	3900	---	6000	195	398	223	201	186	552
31	402	---	349	3500	---	7860	---	284	---	208	181	---
TOTAL	11564	15222	35016	97962	21297	80415	29284	33108	8055	7252	6183	11940
MEAN	373.0	507.4	1130	3160	760.6	2594	976.1	1068	268.5	233.9	199.5	398.0
MAX	2050	2200	3950	24200	3460	17300	7200	5860	910	344	289	3140
MIN	180	374	266	231	254	200	195	213	210	201	162	175
(+)	-1900	-8700	-1200	+2200	-800	+16700	-3300	+1400	-1500	-2700	-3000	-1500
MEAN(+)	312	217	1090	3230	732	3130	866	1110	218	147	103	348
CFSM(+)	.65	.45	2.27	6.72	1.52	6.51	1.80	2.31	0.45	0.31	0.21	0.72
IN. (+)	.75	.50	2.61	7.74	1.58	7.51	2.01	2.67	0.51	0.35	0.25	0.81
CAL YR 2001	MEAN(+)	706	CFSM(+)	1.47	IN. (+)	19.91						
WTR YR 2002	MEAN(+)	967	CFSM(+)	2.01	IN. (+)	27.29						

(+) Change in contents, in cfs-days in Normandy Lake.

(+) Adjusted for change in content.

NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

03598000 DUCK RIVER NEAR SHELBYVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	354.0	905.2	1322	1433	1295	1518	937.8	715.5	522.4	340.7	287.2	308.2
MAX	1314	2277	4132	3160	3730	3649	2992	2753	2151	1670	749	1036
(WY)	1990	1987	1992	2002	1994	1980	1994	1983	1989	1989	1998	1992
MIN	157	170	289	175	339	308	165	137	166	166	154	163
(WY)	1988	1988	2000	1986	1978	1988	1986	1988	1988	1987	1983	1980

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

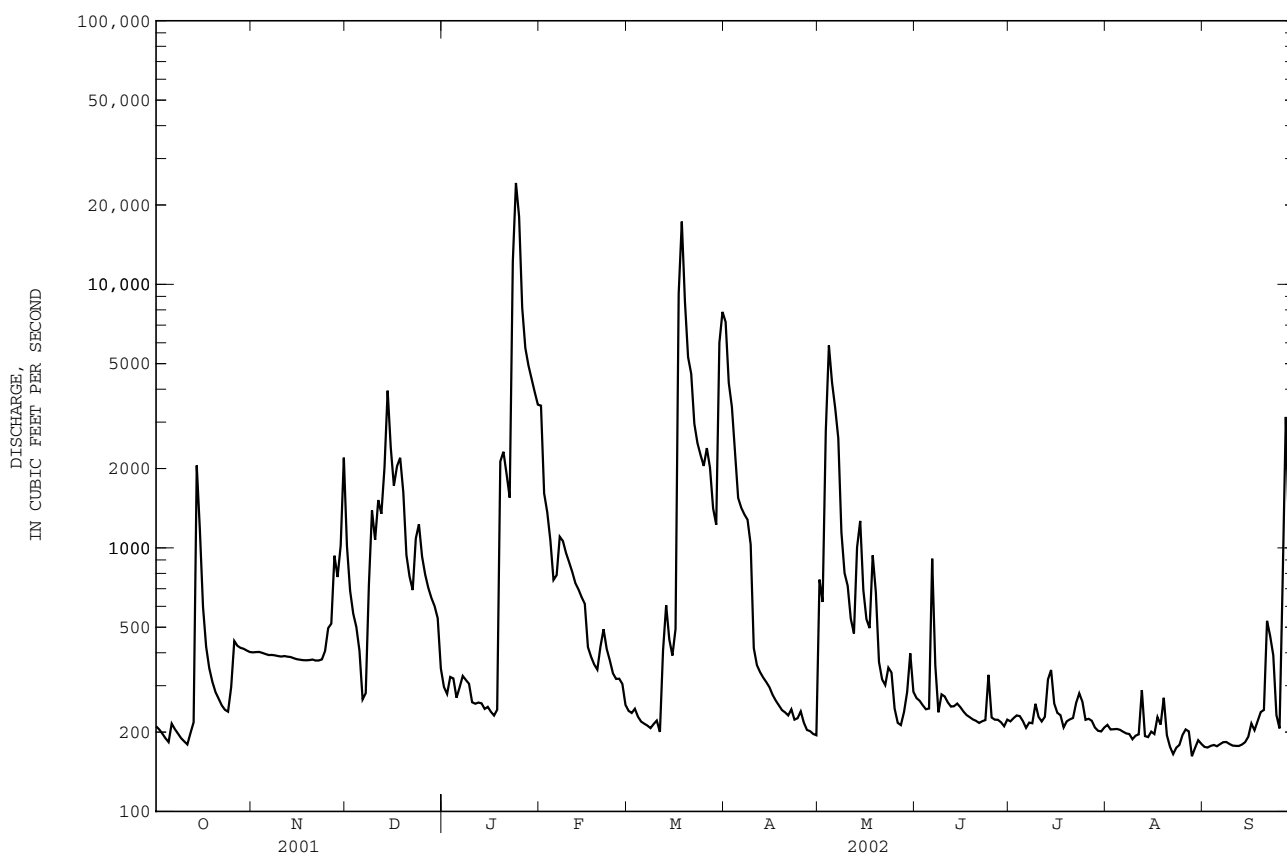
FOR 2002 WATER YEAR

*WATER YEARS 1977 - 2002

ANNUAL TOTAL	256390	357298										
ANNUAL MEAN	702.4	978.9										
HIGHEST ANNUAL MEAN										824.3		
LOWEST ANNUAL MEAN										1253		1991
HIGHEST DAILY MEAN	10700	Feb 17	24200	Jan 24	24200	Jan 24	2002			257		1981
LOWEST DAILY MEAN	159	May 27	162	Aug 28	72	Oct 1	1982			88		Sep 25 1982
ANNUAL SEVEN-DAY MINIMUM	174	Jun 20	176	Aug 28	26400	Jan 24	2002			29.96		Jan 24 2002
MAXIMUM PEAK FLOW			26400	Jan 24	26400	Jan 24	2002			71		Sep 30 1982
MAXIMUM PEAK STAGE			29.96	Jan 24	29.96	Jan 24	2002					
INSTANTANEOUS LOW FLOW			a155	Aug 28	71	Sep 30	1982					
10 PERCENT EXCEEDS	1920		2160		2040							
50 PERCENT EXCEEDS	299		315		304							
90 PERCENT EXCEEDS	187		197		172							

* Regulated period only.

a Also occurred Aug. 29.



TENNESSEE RIVER BASIN

03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN

LOCATION.--Lat 35°35'06", long 86°35'45", Bedford County, Hydrologic Unit 06040002, on left bank 25 ft downstream from State Highway 270 bridge, 1.2 mi downstream from Weakly Creek, 0.8 mi northwest of Poplins Crossroads, and at mile 3.4.

DRAINAGE AREA.--71.9 mi².

PERIOD OF RECORD.--April 1994 to April 1995, October 1998 to current year.

GAGE.--Data logger. Elevation of gage is 662 ft above NGVD of 1929, from topographic map.

REMARKS.--No esitimated daily discharges. Records good.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 23	1745	*7,290	*15.59	Mar 17	1515	5,320	13.82
Jan 24	2030	5,060	13.55	Mar 31	1730	3,940	12.34

Minimum discharge, no flow, many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	9.8	167	34	192	22	759	92	3.9	0.15	0.71	0.12
2	1.9	8.9	107	30	122	21	236	260	2.8	2.7	0.54	0.12
3	1.5	7.7	79	28	90	22	142	519	2.0	2.2	0.42	0.09
4	1.1	6.7	62	25	81	19	99	888	1.5	1.3	0.31	0.06
5	0.98	6.0	51	23	63	17	75	236	1.2	0.66	0.25	0.04
6	2.7	5.3	43	32	76	15	59	127	25	0.42	0.23	0.06
7	5.6	5.0	44	51	144	14	50	89	12	0.30	0.17	0.06
8	6.2	4.5	202	40	119	13	43	65	4.9	0.24	0.13	0.03
9	4.4	4.2	230	36	90	14	39	50	2.9	0.24	0.13	0.00
10	3.2	3.8	161	34	86	19	34	47	1.8	16	0.10	0.00
11	2.5	4.1	234	40	87	17	29	54	1.2	12	0.09	0.00
12	4.0	3.8	139	41	67	145	27	38	1.4	81	0.08	0.00
13	9.0	3.2	275	36	57	164	24	406	1.5	95	0.06	0.00
14	395	2.9	541	32	49	97	21	184	1.7	37	0.06	0.00
15	146	2.7	221	29	44	73	18	88	1.00	19	0.13	0.00
16	87	2.5	141	25	40	81	16	60	0.67	11	0.13	0.00
17	61	2.4	184	24	36	3110	14	49	0.59	7.4	0.18	0.00
18	47	2.2	183	32	31	2230	12	80	0.47	5.2	0.15	0.04
19	37	2.2	117	580	28	463	11	51	0.36	3.9	0.17	0.07
20	30	2.3	86	317	59	376	10	37	0.28	2.9	0.14	0.12
21	24	2.1	70	161	59	248	9.4	28	0.23	2.3	0.10	0.27
22	20	2.0	60	112	41	142	8.7	22	0.19	1.8	0.07	9.5
23	17	2.1	327	4130	35	107	7.5	18	0.16	1.5	0.06	4.6
24	16	3.3	184	4340	31	84	8.9	13	0.15	12	0.29	2.5
25	28	18	112	2490	28	67	11	11	0.17	9.1	2.3	2.0
26	30	17	85	380	29	191	8.9	8.9	0.18	4.3	0.59	79
27	21	23	69	224	28	125	7.1	7.4	0.20	3.3	0.32	246
28	16	51	59	156	24	83	6.2	6.0	0.18	2.0	0.27	93
29	14	155	51	123	---	93	5.2	4.7	0.15	1.2	0.22	41
30	12	693	43	100	---	1300	4.4	5.7	0.13	1.0	0.20	23
31	11	---	38	82	---	2590	---	5.3	---	0.96	0.13	---
TOTAL	1057.48	1056.7	4365	13787	1836	11962	1795.3	3550.0	68.91	338.07	8.73	501.68
MEAN	34.11	35.22	140.8	444.7	65.57	385.9	59.84	114.5	2.297	10.91	0.282	16.72
MAX	395	693	541	4340	192	3110	759	888	25	95	2.3	246
MIN	0.98	2.0	38	23	24	13	4.4	4.7	0.13	0.15	0.06	0.00
CFSM	0.47	0.49	1.96	6.19	0.91	5.37	0.83	1.59	0.03	0.15	0.00	0.23
IN.	0.55	0.55	2.26	7.13	0.95	6.19	0.93	1.84	0.04	0.17	0.00	0.26

03598250 NORTH FORK CREEK NEAR POPLINS CROSSROADS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

MEAN	17.19	32.41	140.8	256.7	170.5	243.2	149.7	57.16	5.891	8.509	25.11	7.961
MAX	51.4	104	226	472	433	386	369	115	12.8	18.6	94.2	24.9
(WY)	1995	1995	1999	1999	2001	2002	1994	2002	2001	1994	2001	1994
MIN	0.002	0.50	25.6	38.3	65.6	147	29.7	3.89	2.30	0.61	0.016	0.000
(WY)	2000	1999	2000	2000	2002	2001	1999	2001	2002	2000	1999	1999

SUMMARY STATISTICS

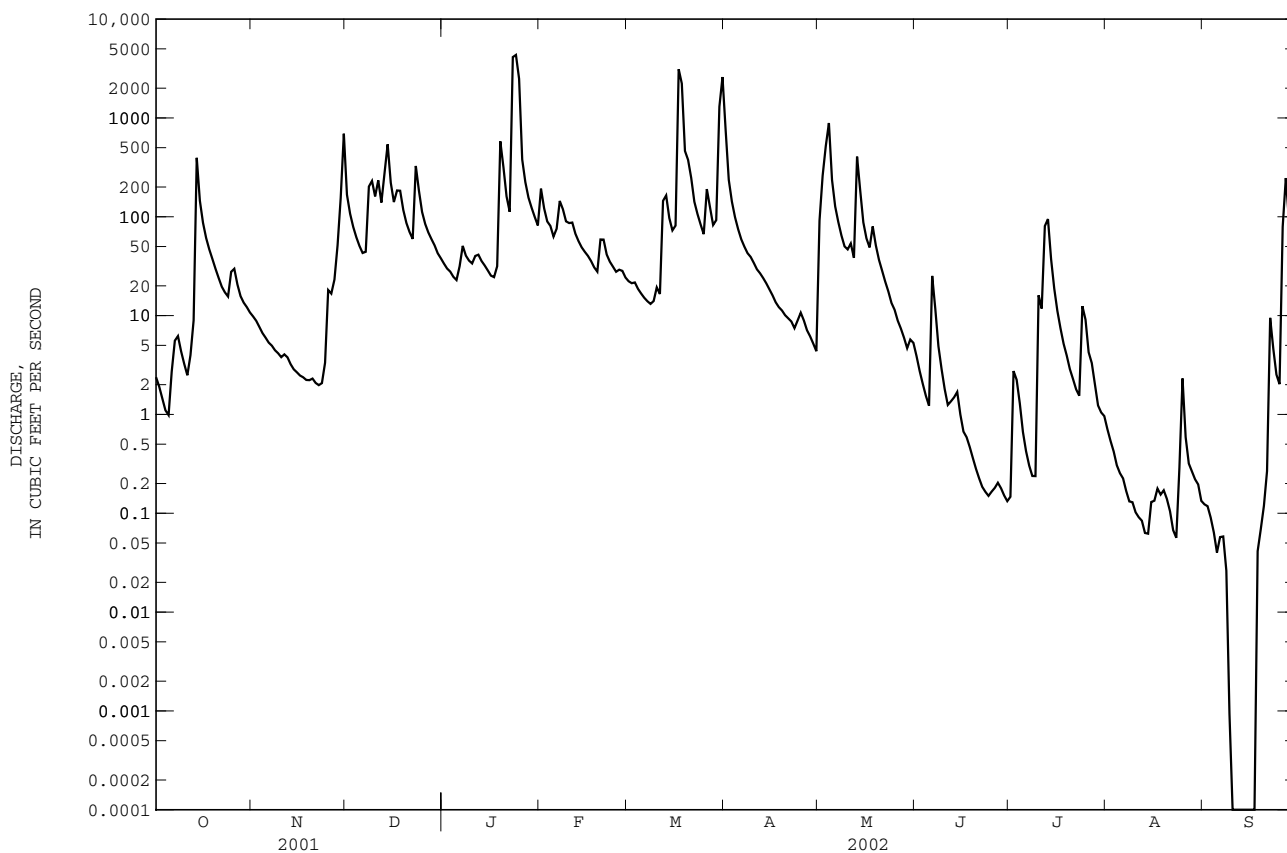
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	33551.25	40326.87	
ANNUAL MEAN	91.92	110.5	90.38
HIGHEST ANNUAL MEAN			110 2002
LOWEST ANNUAL MEAN			61.7 2000
HIGHEST DAILY MEAN	2630 Feb 16	4340 Jan 24	4700 Jan 23 1999
LOWEST DAILY MEAN	0.20 Jul 3	0.00 Sep 9	0.00 Aug 4 1999
ANNUAL SEVEN-DAY MINIMUM	0.30 Jun 27	0.00 Sep 9	0.00 Aug 4 1999
MAXIMUM PEAK FLOW		7290 Jan 23	7390 Jan 23 1999
MAXIMUM PEAK STAGE		15.59 Jan 23	15.67 Jan 23 1999
INSTANTANEOUS LOW FLOW		a0.00 Sep 9	0.00 Aug 4 1999
ANNUAL RUNOFF (CFSM)	1.28	1.54	1.26
ANNUAL RUNOFF (INCHES)	17.36	20.86	17.08
10 PERCENT EXCEEDS	177	183	166
50 PERCENT EXCEEDS	16	17	9.4
90 PERCENT EXCEEDS	0.88	0.15	0.03

a No flow many days, most years.



03599500 DUCK RIVER AT COLUMBIA, TN

LOCATION.--Lat 35°37'05", long 87°01'56", Maury County, Hydrologic Unit 06040003, on right bank 4 ft downstream from bridge on former U.S. Highway 31, 2 blocks north of public square in Columbia, 2.4 mi upstream from Rutherford Creek, and at mile 132.8.

DRAINAGE AREA.--1,208 mi².

PERIOD OF RECORD.--October 1904 to December 1908, April 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site, 1887-95, 1911 (fragmentary), 1947-71, published in reports of U.S. Weather Bureau. Discharge records furnished by Tennessee Valley Authority, 1983-1991.

REVISED RECORD.--WSP 783: 1929(M). WSP 853: Drainage area. WSP 1306: 1905-9, 1920-22, 1923(M).

GAGE.--Data collection platform. Datum of gage is 535.33 ft above NGVD of 1929, supplementary adjustment of 1955. Prior to Jan. 9, 1925, nonrecording gages near this site; all gages at datum 2.37 ft higher prior to Oct. 1, 1933.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water quality data. Maximum discharge prior to regulation, 61,500 ft³/s, Mar. 17, 1973; maximum gage height, 51.75 ft Feb. 14, 1948; no flow Oct. 22, 1922, caused by regulation by power plant .75 mi upstream. Flow regulated by Normandy Lake (station 03596460) since January 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 30, 1902, reached a stage of 48.0 ft, present datum, discharge, 50,700 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51,000 ft³/s, Jan. 26, gage height, 45.61 ft; minimum discharge, 161 ft³/s, Sept. 12-14, gage height, 1.47 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	507	8250	968	5250	590	24300	1400	428	221	221	193
2	276	496	3880	814	5670	520	19600	2480	344	216	217	188
3	261	488	2300	724	3720	501	9280	5200	294	222	214	186
4	248	480	1700	676	2740	481	6060	10800	267	217	204	181
5	249	470	1370	694	2280	464	4430	12900	249	223	197	174
6	387	462	1140	681	1780	432	3020	8010	244	218	192	170
7	390	452	945	654	1980	410	2560	5450	724	207	189	174
8	306	448	1470	768	2840	394	2270	4190	736	194	181	184
9	277	447	4260	791	2630	399	2070	2340	408	195	179	176
10	258	441	4380	735	2230	414	1860	1700	277	231	178	171
11	245	435	3330	707	2010	417	1220	1510	253	362	178	166
12	287	431	3720	644	1840	1380	948	1270	259	385	174	162
13	405	428	3770	645	1640	3480	840	1950	251	300	176	161
14	4260	426	6650	624	1480	3060	751	3560	252	1010	227	164
15	6290	421	8590	595	1340	2020	691	3010	245	1150	214	173
16	3300	416	5660	562	1230	1760	631	1750	251	673	206	183
17	1700	414	3850	545	1040	14700	581	1310	244	428	201	188
18	1160	412	4320	545	850	27600	546	1170	232	331	201	218
19	898	411	4460	1670	764	32200	489	1380	225	292	227	228
20	748	412	3180	6670	817	28600	453	1400	207	256	250	219
21	632	411	2180	5760	995	15900	418	887	203	243	417	243
22	544	406	1710	3800	1190	8710	392	653	194	239	257	315
23	479	407	1810	13600	980	5900	364	548	189	e186	233	626
24	444	428	3390	35500	852	4600	375	491	191	e210	248	666
25	454	468	3070	49300	754	3890	413	498	210	e575	257	487
26	441	557	2190	49900	708	3830	395	459	298	425	224	931
27	515	1000	1790	40100	670	4960	384	372	272	313	241	3980
28	602	1820	1550	20100	644	4030	380	317	247	391	226	5330
29	561	6210	1370	8600	---	2850	436	294	228	308	222	2680
30	537	13100	1210	6700	---	6040	406	287	212	256	211	1330
31	521	---	1100	5770	---	18300	---	330	---	234	188	---
TOTAL	27977	33704	98595	259842	50924	198832	86563	77916	8634	10711	6750	20247
MEAN	902.5	1123	3180	8382	1819	6414	2885	2513	287.8	345.5	217.7	674.9
MAX	6290	13100	8590	49900	5670	32200	24300	12900	736	1150	417	5330
MIN	245	406	945	545	644	394	364	287	189	186	174	161
(+)	-1900	-8700	-1200	+2200	-800	+16700	-3300	+1400	-1500	-2700	-3000	-1500
MEAN(+)	841	833	3140	8450	1790	6950	2780	2560	238	258	121	625
CFSM(+)	.70	.69	2.60	7.00	1.48	5.76	2.30	2.12	.20	.21	.10	.52
IN. (+)	.80	.77	3.00	8.07	1.54	6.64	2.56	2.44	.22	.25	.12	.58
CAL YR 2000	MEAN(+)	1870	CFSM(+)	1.55	IN. (+)	21.04						
WTR YR 2001	MEAN(+)	2400	CFSM(+)	1.99	IN. (+)	26.98						

(+) Change in contents, in cfs-days in Normandy Lake.

(#) Adjusted for change in content.

NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

e Estimated

03599500 DUCK RIVER AT COLUMBIA, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2002, BY WATER YEAR (WY)

MEAN	712.7	2013	3486	3818	3580	4254	2652	1961	1032	652.8	467.6	611.2
MAX	3642	5925	10360	8513	9901	10090	7464	9106	5081	4740	1365	3832
(WY)	1990	1987	1991	1979	1991	1980	1994	1983	1997	1989	1998	1979
MIN	160	236	418	273	953	1104	325	244	167	220	172	150
(WY)	2000	1981	1981	1986	1978	1985	1986	1988	1988	1988	1999	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

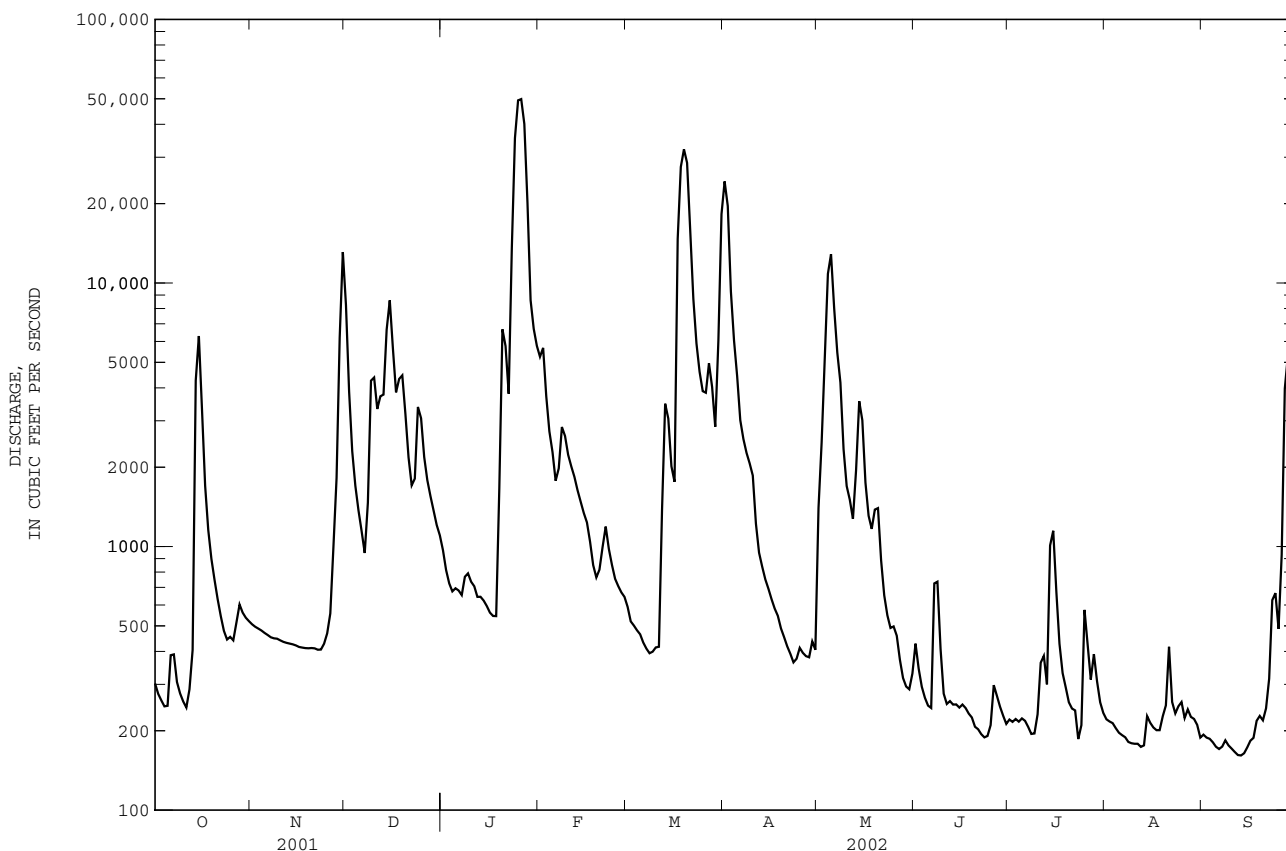
FOR 2002 WATER YEAR

*WATER YEARS 1977 - 2002

ANNUAL TOTAL	682251		880695									
ANNUAL MEAN	1869		2413							2102		
HIGHEST ANNUAL MEAN										3282		1989
LOWEST ANNUAL MEAN										553		1981
HIGHEST DAILY MEAN	35000	Feb 17	49900	Jan 26	52300	Feb 20	1991					
LOWEST DAILY MEAN	202	Jul 22	161	Sep 13	86	Oct 4	1982					
ANNUAL SEVEN-DAY MINIMUM	213	Jul 19	168	Sep 9	100	Sep 28	1982					
MAXIMUM PEAK FLOW			51000	Jan 26	52300	Feb 20	1991					
MAXIMUM PEAK STAGE			45.61	Jan 26	45.82	Feb 20	1991					
INSTANTANEOUS LOW FLOW			a161	Sep 12	a161	Sep 12	2002					
10 PERCENT EXCEEDS	4450		5380		4880							
50 PERCENT EXCEEDS	561		521		726							
90 PERCENT EXCEEDS	257		204		189							

* Regulated period only.

a Also occurred Sept. 13, 14.



TENNESSEE RIVER BASIN

03600085 CARTERS CREEK AT PETTY LANE NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'39", long 86°59'19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mile north of Carters Creek, and at mile 4.7.

DRAINAGE AREA.--16.6 mi².

PERIOD OF RECORD.--October 1986 to current year

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY	DIS-	SPE-	TEMPER-	PH	BARO-	OXYGEN,	OXYGEN,	COLI-	FECAL	ARSENIC	BARIUM,
		ANALYZING	CHARGE, INST.	CIFIC		WATER	METRIC		DIS-	FORM,	STREP,		
		SAMPLE	CUBIC	CON-	ATURE	FIELD	SURE		SOLVED	FECAL,	KF STRP	TOTAL	
		(CODE	FEEET	DUCT-	WATER	(STAND-	(MM		(PER-	0.7	MF,	(UG/L	(UG/L
		NUMBER)	PER	ANCE	(DEG C)	ARD	OF		CENT	UM-MF	WATER	AS AS)	(UG/L
		(000028)	SECOND	(US/CM)	(00010)	(00400)	(00025)	(00300)	SATUR-	(COLS./	(COL/	(01002)	(01007)
									ATION)	100 ML)	100 ML)		
NOV 27...	0915	80020	11	370	14.5	7.3	752	12.5	125	K9300	3500	<2	18.0
FEB 26...	0900	80020	17	339	8.5	7.8	750	10.7	93	430	360	<2	13.9
MAY 21...	0915	80020	13	362	13.0	7.7	760	10.5	100	310	430	E1	15.0
AUG 20...	0935	80020	.32	333	23.5	7.3	750	--	--	K800	1700	<1	18.5
Date		CADMIUM	CHRO-	COPPER,	LEAD,	MERCURY	NICKEL,	SILVER,	ZINC,	CYANIDE	OIL AND	SEDI-	
		WATER	MIUM,	TOTAL	TOTAL	TOTAL	TOTAL		TOTAL		TOTAL		GREASE,
		UNFLTRD	RECov-	RECov-	RECov-	RECov-	RECov-		RECov-		RECOV.		
		ERABLE	ERABLE	ERABLE	ERABLE	ERABLE	ERABLE		ERABLE		GRAVI-		
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(MG/L	METRIC	MENT,	
		AS CD)	AS CR)	AS CU)	AS PB)	AS HG)	AS NI)	AS SE)	AS AG)	AS ZN)	AS CN)	(MG/L)	CHARGE,
		(01027)	(01034)	(01042)	(01051)	(71900)	(01067)	(01147)	(01077)	(01092)	(00720)	(00556)	SUS-
													PENDE
													PENDE
NOV 27...	E.1	<.8	1.5	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	7.0	.21
FEB 26...	<.1	E.7	<1.0	<1	E.01	<2.0	<2	<.3	<20	<.01	<7	9.0	.41
MAY 21...	<.1	.9	E.7	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	4.0	.14
AUG 20...	<.1	<.8	<1.0	<1	<.01	<2.0	<2	<.3	E10	<.01	<7	5.0	.0
Date		SED.	BENZENE	BENZENE	1,2-DI-	BENZENE	BENZENE	2,4,6-	2,4-DI-	2,4-DI-	2,4,-	2,4-DI-	2-CHLORO-
		SUSP.	1,2,4-	O-DI-	PHENYL-	1,3-DI-	1,4-DI-						
		SIEVE	TRI-	CHLORO-	HYDRA-	CHLORO-	CHLORO-						
		DIAM.	CHLORO-	WATER	ZINE	WATER	WATER						
		% FINER	WAT UNF	UNFLTRD	WATER	UNFLTRD	UNFLTRD						
		THAN	REC	REC	TOT.REC	REC	REC						
		.062 MM	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		(70331)	(34551)	(34536)	(82626)	(34566)	(34571)	(34621)	(34601)	(34606)	(34616)	(34611)	(34626)
NOV 27...	96	<2	<2	<2	<2	<2	<3	<3	<3.0	<20	<3	<2	<2
FEB 26...	45	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	90	<2	<2	<2	<2	<2	<3	<3	<.7	<3	<3	<2	<2
AUG 20...	87	--	--	--	--	--	--	--	--	--	--	--	--
Date		2-	2-	3,3'-	4,6-	4-	4-	4-	ACE-	ACE-	ANTHRA-	ANTHRA-	BENZ I-
		CHLORO-	NITRO-	DI-	DINITRO-	BROMO-	CHLORO-						
		PHENOL	PHENOL	CHLORO-	ORTHODINE	PHENYL	CHLORO-						
		TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL						
		(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
NOV 27...	<2	<3	<3	<3	<2	<3	<2	<3	<2	<2	<2	<2	<40
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<2	<1	<5	<3	<2	<3	<2	<3	<2	<2	<2	<2	<40
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--

K--Results based on non-ideal colony count.

E--Estimated

03600085 CARTERS CREEK AT PETTY LANE NEAR CARTERS CREEK, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO-[GHI]-PERY-LENE TOTAL (UG/L) (34521)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)	BIS(2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS(2-CHLORO-ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	BIS(2-ETHYL-HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L) (34292)	CHRY-SENE TOTAL (UG/L) (34320)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L) (34556)
	NOV 27...	<3	<3	<3	<3	<3	<2	<2	<19	<4	<3	<3	<5
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<1	<2	<3	<2	<3	<2	<2	<6	<4	<3	<2	<5	<3
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	FLUOR-ANTHENE TOTAL (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)	HEXA-CHLORO-BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CYCLOPE-NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	ISO-PHORONE TOTAL (UG/L) (34408)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L) (34428)	N-NITRO-SODI-METHYL-AMINE TOTAL (UG/L) (34438)	N-NITRO-SODI-PHENYL-AMINE TOTAL (UG/L) (34433)
	NOV 27...	<2	<2	<2	<2	<2	<3	<2	<2	<3	<2	<3	<3
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<2	<2	<2	<2	<2	<1	<4	<2	<3	<2	<2	<3	<2
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date					NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	PENTA-CHLORO-PHENOL TOTAL (UG/L) (39032)	PHENAN-THRENE TOTAL (UG/L) (34461)					
	NOV 27...					<5	<2	<4	<2				
FEB 26...					--	--	--	--					
MAY 21...					<5	<2	<4	<2					
AUG 20...					--	--	--	--					

TENNESSEE RIVER BASIN

03600086 CARTERS CREEK TRIBUTARY NEAR CARTERS CREEK, TN

LOCATION.--Lat 35°43'34", long 86°59'19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mile north of Carters Creek.

DRAINAGE AREA.--2.94 mi².

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY	DIS-	SPE-	TEMPER-	PH	BARO-	OXYGEN,	OXYGEN,	DIS-	COLI-	FECAL	ARSENIC	BARIUM,
		ANA-	CHARGE,	CIFIC		WATER	METRIC		SURE	SOLVED	FORM,	STREP,		
		LYZING	INST.	CON-	ATURE	WHOLE	PRES-		DIS-	(PER-	FECAL,	KF STRP	TOTAL	TOTAL
		SAMPLE	FEET	DUCT-	WATER	(STAND-	(MM		SOLVED	CENT	UM-MF	WATER	(UG/L	(UG/L
		(CODE	PER	ANCE		ARD	OF		(MG/L)	SATUR-	(COLS./	(COL/	AS AS)	(UG/L
		NUMBER	SECOND	(US/CM)	(DEG C)	UNITS)	HG)		(MG/L)	ATION)	(COLS./	(COL/	AS AS)	(UG/L
		(00028)	(00061)	(00095)	(00010)	(00400)	(00025)	(00300)	(00301)	(31625)	(31625)	(31673)	(01002)	(01007)
NOV														
27...	1020	80020	19	270	16.0	7.2	752	10.9	112	5900	K1800	E1	16.3	
FEB														
26...	1000	80020	6.0	601	9.5	7.6	750	10.0	89	120	300	<2	12.9	
MAY														
21...	1010	80020	3.2	555	15.5	7.8	760	10.8	109	80	52	E1	12.7	
AUG														
20...	1040	80020	.46	601	25.5	7.5	750	--	--	400	1900	2	18.7	
Date		CADMIUM	CHRO-	COPPER,	LEAD,	MERCURY	NICKEL,		SILVER,	ZINC,		OIL AND		SEDI-
		WATER	MIUM,	TOTAL	TOTAL	TOTAL	TOTAL		TOTAL	TOTAL		GREASE,		MENT,
		UNFLTRD	TOTAL	RECOV-	RECOV-	RECOV-	RECOV-		RECOV-	RECOV-		TOTAL	SEDI-	DIS-
		RECOV-	RECOV-	ERABLE	ERABLE	ERABLE	ERABLE		ERABLE	ERABLE		RECOV.	MENT,	CHARGE,
		ERABLE	ERABLE						NIUM,	TOTAL	CYANIDE	RECOV.	SUS-	SUS-
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	AS SE)	(UG/L	AS ZN)	GRAVI-	PENDE	PENDE
		AS CD)	AS CR)	AS CU)	AS PB)	AS HG)	AS NI)	AS SE)	AS AG)	AS ZN)	AS CN)	METRIC	(MG/L)	(T/DAY)
		(01027)	(01034)	(01042)	(01051)	(71900)	(01067)	(01147)	(01077)	(01092)	(00720)	(00556)	(80154)	(80155)
NOV														
27...	<.1	E.8	1.9	1	E.01	E1.3	<2	<.3	<20	<.01	<7	50	2.5	
FEB														
26...	<.1	E.8	1.5	<1	E.01	E1.2	<2	<.3	<20	<.01	<7	4.0	.06	
MAY														
21...	<.1	<.8	<1.0	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	28	.24	
AUG														
20...	<.1	<.8	<1.0	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	4.0	.0	
Date		SED.	BENZENE	BENZENE	1,2-DI-	BENZENE	BENZENE	2,4,6-			2,4,-		2,6-DI-	2-
		SUSP.	1,2,4-	O-DI-	PHENYL-	1,3-DI-	1,4-DI-	TRI-			DI-	2,4-DI-	NITRO-	CHLORO-
		SIEVE	TRI-	CHLORO-	HYDRA-	CHLORO-	CHLORO-	CHLORO-	2,4-DI-	2,4-DI-	NITRO-	NITRO-	NITRO-	NAPH-
		DIAM.	CHLORO-	WATER	ZINE	WATER	WATER	PHENOL	CHLORO-	METHYL-	PHENOL	TOLUENE	TOLUENE	THALENE
		% FINER	WAT UNF	UNFLTRD	WATER	UNFLTRD	UNFLTRD	TOTAL	CHLORO-	PHENOL	PHENOL	TOTAL	TOTAL	TOTAL
		THAN	REC	REC	TOT.REC	REC	REC	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
		.062 MM	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(34621)	(34601)	(34606)	(34616)	(34611)	(34626)	(34581)
NOV														
27...	90	<2	<2	<2	<2	<2	<3	<3	<3.0	<20	<3	<2	<2	
FEB														
26...	82	--	--	--	--	--	--	--	--	--	--	--	--	
MAY														
21...	83	<2	<2	<2	<2	<2	<3	<3	<.7	<3	<3	<2	<2	
AUG														
20...	82	--	--	--	--	--	--	--	--	--	--	--	--	
Date		2-	2-	3,3'-	4,6-	4-	4-						BENZO-	BENZI-
		CHLORO-	NITRO-	DI-	DINITRO-	BROMO-	CHLORO-			4-	ACE-	ACE-	[A]-	DINE
		PHENOL	PHENOL	CHLORO-	-ORTHO-	PHENYL	PHENYL			NITRO-	NAPHTH-	NAPHTH-	ANTHRA-	ANTHRA-
		TOTAL	TOTAL	BENZINE	ETHHER	ETHHER	ETHHER			PHENOL	ENE	YLENE	CENE	CENE
		(UG/L)	(UG/L)	TOTAL	TOTAL	TOTAL	TOTAL	(UG/L)	(UG/L)	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
		(34586)	(34591)	(34631)	(34657)	(34636)	(34452)	(34641)	(34646)	(34205)	(34200)	(34220)	(34526)	(39120)
NOV														
27...	<2	<1	<3	<3	<2	<3	<2	<3	<2	<2	<2	<2	<2	<40
FEB														
26...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY														
21...	<2	<1	<5	<3	<2	<3	<2	<3	<2	<2	<2	<2	<2	<40
AUG														
20...	--	--	--	--	--	--	--	--	--	--	--	--	--	--

K--Results based on non-ideal colony count.
E--Estimated

03600086 CARTERS CREEK TRIBUTARY NEAR CARTERS CREEK, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO-[GHI]-PERY-LENE TOTAL (UG/L) (34521)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)	BIS(2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS(2-CHLORO-ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	BIS(2-ETHYL-HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L) (34292)	CHRY-SENE TOTAL (UG/L) (34320)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L) (34556)
	NOV 27...	<1	<2	<3	<2	<3	<2	<2	<6	<4	<3	<2	<5
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<1	<2	<3	<2	<3	<2	<2	<6	<4	<3	<2	<5	<3
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	FLUOR-ANTHENE TOTAL (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)	HEXA-CHLORO-BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CYCLOPE-NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	ISO-PHORONE TOTAL (UG/L) (34408)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L) (34428)	N-NITRO-SODI-METHYL-AMINE TOTAL (UG/L) (34438)	N-NITRO-SODI-PHENYL-AMINE TOTAL (UG/L) (34433)
	NOV 27...	<2	<2	<2	<2	<2	<3	<2	<2	<3	<2	<3	<3
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<2	<2	<2	<2	<2	<1	<4	<2	<3	<2	<2	<3	<2
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	PENTA-CHLORO-PHENOL TOTAL (UG/L) (39032)	PHENAN-THRENE TOTAL (UG/L) (34461)									
	NOV 27...	<5	<2	<4	<2								
FEB 26...	--	--	--	--									
MAY 21...	<5	<2	<4	<2									
AUG 20...	--	--	--	--									

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN

LOCATION.--Lat 35°43'02", long 86°59'45", Maury County, Hydrologic Unit 06040003, on left bank at end of Butler Road bridge, 0.1 mi west of Carters Creek, 0.3 mi upstream from Terrell Branch, 3.7 mi upstream from Rutherford Creek, and at mile 3.7.

DRAINAGE AREA.--20.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to current year. Occasional low-flow measurements, water year 1986.

REVISED RECORD.--WDR TN-97-1: 1992-96 (M): 1992-96 (P).

GAGE.--Data collection platform, crest-stage gage and concrete weir. Datum of gage is 605.94 ft above NGVD of 1929.

REMARKS.--Records good except for estimated daily discharges, which are fair. Diurnal fluctuation caused by industrial development upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	0045	1,200	8.65	Jan 24	0730	2,390	12.66
Nov 29	1245	2,410	12.72	Jan 24	1800	930	7.68
Nov 29	2115	1,810	10.72	Mar 17	0630	*2,640	*13.53
Jan 23	0645	1,150	8.49	Mar 18	0445	1,180	8.58
Jan 23	1600	991	7.90	May 13	0915	1,060	8.14

Minimum discharge, 0.22 ft³/s, several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.96	6.9	121	17	88	17	165	50	5.3	e1.3	0.57	0.45
2	0.88	6.3	82	15	63	16	106	102	4.5	e1.3	0.44	0.43
3	0.83	5.7	63	15	53	16	78	80	4.2	1.4	0.34	0.38
4	0.93	5.2	51	14	45	14	62	139	4.0	1.1	0.24	0.46
5	9.6	4.9	41	13	38	13	50	73	17	0.87	0.27	0.55
6	36	4.6	35	15	38	13	42	53	10	0.76	0.24	0.31
7	6.6	4.4	41	13	42	12	37	41	6.6	0.68	0.22	0.29
8	3.9	4.2	343	12	41	12	34	33	5.2	0.63	e0.22	0.28
9	2.8	3.9	137	11	38	16	33	29	5.2	2.1	e0.22	0.28
10	2.2	3.7	92	11	37	15	29	29	4.2	2.0	e0.22	0.29
11	1.9	3.6	73	12	34	14	28	28	3.4	1.8	e0.22	0.25
12	49	3.4	63	11	31	70	29	24	3.4	1.4	e0.22	0.24
13	64	3.3	188	10	29	66	25	188	3.8	1.4	e0.22	0.22
14	340	3.3	194	9.5	27	49	22	92	3.3	2.0	0.34	0.27
15	74	3.2	109	8.6	24	39	20	50	2.7	1.1	0.87	2.5
16	48	3.1	81	8.7	23	40	19	36	2.4	0.91	0.93	6.4
17	35	3.0	83	8.4	21	963	17	30	2.0	0.79	1.3	0.87
18	28	2.9	72	17	19	510	16	27	e2.1	0.66	11	2.4
19	24	2.9	59	102	17	193	15	20	e1.4	0.99	8.3	2.0
20	20	4.0	47	68	40	223	14	16	1.3	0.93	0.76	1.3
21	16	2.9	40	49	32	137	13	14	1.0	0.65	0.64	5.8
22	14	2.7	35	39	27	93	15	13	1.1	2.3	0.54	2.2
23	13	2.8	46	612	24	76	12	11	e1.2	2.9	1.9	1.3
24	12	11	39	952	22	62	15	9.8	e1.5	1.2	4.1	0.79
25	20	12	34	269	20	54	18	9.0	1.8	0.84	2.5	0.73
26	15	6.3	31	140	24	69	12	8.4	1.6	0.71	0.82	35
27	12	34	28	98	20	56	10	7.5	1.2	0.72	0.65	90
28	9.9	40	26	77	17	44	11	6.7	1.3	0.72	0.80	28
29	8.4	975	23	65	---	43	12	6.3	e1.2	0.70	0.58	14
30	8.1	309	20	57	---	97	10	6.9	e1.3	0.67	0.53	10
31	7.5	---	18	48	---	370	---	6.9	---	0.70	0.50	---
TOTAL	884.50	1478.2	2315	2797.2	934	3412	969	1239.5	105.2	36.23	40.70	207.99
MEAN	28.53	49.27	74.68	90.23	33.36	110.1	32.30	39.98	3.507	1.169	1.313	6.933
MAX	340	975	343	952	88	963	165	188	17	2.9	11	90
MIN	0.83	2.7	18	8.4	17	12	10	6.3	1.0	0.63	0.22	0.22
CFSM	1.42	2.45	3.72	4.49	1.66	5.48	1.61	1.99	0.17	0.06	0.07	0.34
IN.	1.64	2.74	4.28	5.18	1.73	6.31	1.79	2.29	0.19	0.07	0.08	0.38

e Estimated

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

MEAN	8.427	28.08	55.08	61.10	71.13	68.47	37.39	28.75	16.06	9.350	4.060	5.970
MAX	44.8	64.7	126	119	146	138	98.7	93.4	54.2	45.5	13.8	20.3
(WY)	1990	1989	1991	1999	1990	1994	1994	1991	1998	1989	2001	1989
MIN	0.29	1.35	9.79	19.6	20.8	20.5	13.9	3.11	0.51	0.54	0.47	0.64
(WY)	2001	1999	2000	2000	1995	1988	1992	1988	1988	1988	1987	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

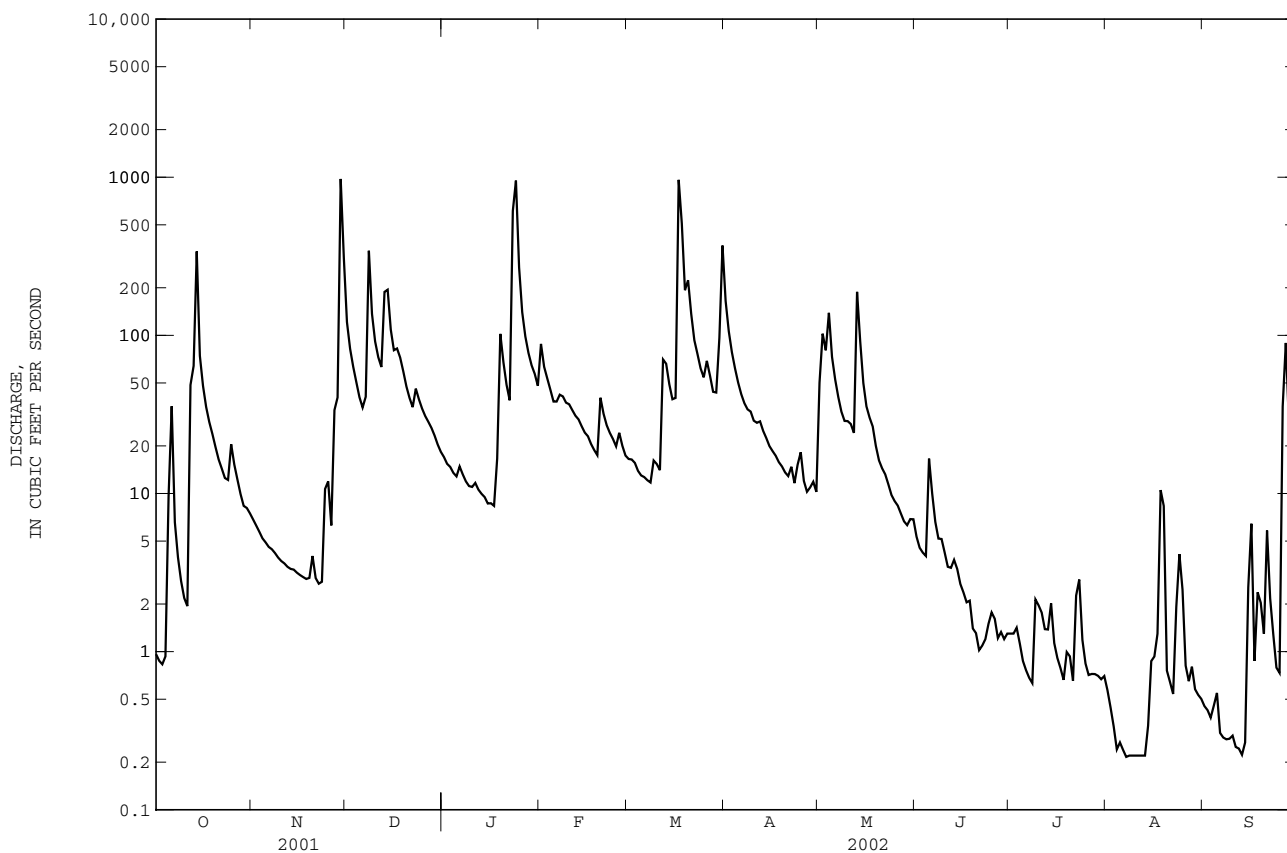
FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	13983.20	14419.52	
ANNUAL MEAN	38.31	39.51	32.65
HIGHEST ANNUAL MEAN			50.0 1989
LOWEST ANNUAL MEAN			17.4 1988
HIGHEST DAILY MEAN	1030 Feb 16	975 Nov 29	1430 Feb 3 1990
LOWEST DAILY MEAN	0.83 Oct 3	0.22 Aug 7	0.12 Aug 15 1987
ANNUAL SEVEN-DAY MINIMUM	1.0 Sep 28	0.22 Aug 7	0.15 Jun 25 1988
MAXIMUM PEAK FLOW			3300 May 3 1993
MAXIMUM PEAK STAGE			15.90 May 3 1993
INSTANTANEOUS LOW FLOW		a0.22 Aug 7	b0.11 Aug 15 1987
ANNUAL RUNOFF (CFSM)	1.91	1.97	1.62
ANNUAL RUNOFF (INCHES)	25.88	26.69	22.07
10 PERCENT EXCEEDS	81	79	69
50 PERCENT EXCEEDS	15	12	12
90 PERCENT EXCEEDS	2.9	0.66	0.74

a Also occurred several days.

b Also occurred Aug. 16, 1987, June 26, 1988.



03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	AGENCY	DIS-	SPE-	TEMPER-	PH	BARO-	OXYGEN,	DIS-	COLI-	FECAL	ARSENIC	BARIUM,	
		ANALYZING SAMPLE (CODE NUMBER) (00028)	CHARGE, INST. CUBIC FEET PER SECOND (00061)	CIFIC CON- DUCT- ANCE (US/CM) (00095)		WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	METRIC PRES- SURE (MM OF HG) (00025)		SOLVED (PER- CENT SATUR- ATION) (00301)	FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP, KF STRP MF, WATER (COL/ 100 ML) (31673)		TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	
NOV 27...	1125	80020	38	509	15.0	7.5	752	10.9	110	K7100	2300	<2	21.3	
FEB 26...	1100	80020	24	418	8.5	8.0	750	11.9	103	K680	250	<2	13.9	
MAY 21...	1115	80020	16	385	14.5	8.1	760	11.3	111	260	290	<2	14.9	
AUG 20...	1110	80020	.66	493	25.0	7.6	750	--	--	280	1500	2	21.3	
Date		CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CYANIDE TOTAL (MG/L AS CN) (00720)	OIL AND GREASE, TOTAL RECOV- ERABLE (MG/L AS CN) (00556)	SEDIMENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	
NOV 27...	<.1	<.8	1.2	<1	E.01	<2.0	<2	<.3	<20	<.01	<7	17	1.7	
FEB 26...	<.1	E.5	<1.0	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	4.0	.26	
MAY 21...	<.1	<.8	<1.0	<1	<.01	<2.0	<2	<.3	<20	<.01	<7	4.0	.17	
AUG 20...	<.1	<.8	<1.0	<1	<.01	<2.0	E2	<.3	<20	<.01	E4	4.0	.01	
Date		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BENZENE 1,2,4- TRI- CHLORO- WAT UNF REC (UG/L) (34551)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- PHENYL- HYDRA- ZINE WATER TOT.REC (UG/L) (82626)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L) (34621)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L) (34601)	2,4-DI- METHYL- PHENOL TOTAL (UG/L) (34606)	2,4-DI- NITRO- PHENOL TOTAL (UG/L) (34616)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L) (34611)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L) (34626)	2- CHLORO- NAPH- THALENE TOTAL (UG/L) (34581)
NOV 27...	92	<2	<2	<2	<2	<2	<3	<3	<3.0	<20	<3	<2	<2	
FEB 26...	92	--	--	--	--	--	--	--	--	--	--	--	--	
MAY 21...	90	<2	<2	<2	<2	<2	<3	<3	<.7	<3	<3	<2	<2	
AUG 20...	93	--	--	--	--	--	--	--	--	--	--	--	--	
Date		2- CHLORO- PHENOL TOTAL (UG/L) (34586)	2- NITRO- PHENOL TOTAL (UG/L) (34591)	3,3'- DI- CHLORO- BENZ- DINE TOTAL (UG/L) (34631)	4,6- DINITRO- -ORTHO- CRESOL TOTAL (UG/L) (34657)	4- BROMO- PHENYL ETHER TOTAL (UG/L) (34636)	PARA- CHLORO- META CRESOL TOTAL (UG/L) (34452)	4- CHLORO- PHENYL ETHER TOTAL (UG/L) (34641)	4- NITRO- PHENOL TOTAL (UG/L) (34646)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZO- [A]- ANTHRA- CENE WAT UNF TOTAL (UG/L) (34526)	BENZI- DINE TOTAL (UG/L) (39120)
NOV 27...	<2	<1	<3	<3	<2	<3	<2	<3	<2	<2	<2	<2	<40	
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--	
MAY 21...	<2	<1	<5	<3	<2	<3	<2	<3	<2	<2	<2	<2	<40	
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--	

K--Results based on non-ideal colony count.
E--Estimated

03600088 CARTERS CREEK AT BUTLER ROAD AT CARTERS CREEK, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO-[GHI]-PERY-LENE TOTAL (UG/L) (34521)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)	BIS(2-CHLORO-ETHOXY) METHANE TOTAL (UG/L) (34278)	BIS(2-CHLORO-ETHYL) ETHER UNFLTRD RECOVER (UG/L) (34273)	BIS(2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L) (34283)	BIS(2-ETHYL-HEXYL) PHTHAL-ATE TOTAL (UG/L) (39100)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L) (34292)	CHRY-SENE TOTAL (UG/L) (34320)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L) (39110)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L) (34596)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L) (34556)
	NOV 27...	<3	<3	<3	<3	<3	<2	<2	E3	<4	<3	<3	<5
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<1	<2	<3	<2	<3	<2	<2	<6	<4	<3	<2	<5	<3
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	DIETHYL PHTHAL-ATE TOTAL (UG/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (UG/L) (34341)	FLUOR-ANTHENE TOTAL (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)	HEXA-CHLORO-BENZENE TOTAL (UG/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L) (39702)	CYCLOPE-NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (UG/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (UG/L) (34396)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	ISO-PHORONE TOTAL (UG/L) (34408)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L) (34428)	N-NITRO-SODI-METHYL-AMINE TOTAL (UG/L) (34438)	N-NITRO-SODI-PHENYL-AMINE TOTAL (UG/L) (34433)
	NOV 27...	<2	<2	<2	<2	<2	<3	<2	<2	<3	<2	<2	<3
FEB 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	<2	<2	<2	<2	<2	<1	<4	<2	<3	<2	<2	<3	<2
AUG 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
Date	NAPHTH-ALENE TOTAL (UG/L) (34696)	BENZENE NITRO-WATER UNFLTRD RECOVER (UG/L) (34447)	PENTA-CHLORO-PHENOL TOTAL (UG/L) (39032)	PHENAN-THRENE TOTAL (UG/L) (34461)									
	NOV 27...	<5	<2	<4	<2								
FEB 26...	--	--	--	--									
MAY 21...	<5	<2	<4	<2									
AUG 20...	--	--	--	--									

TENNESSEE RIVER BASIN

03601990 DUCK RIVER AT HIGHWAY 100 AT CENTERVILLE, TN

LOCATION.--Lat 35°47'03", long 87°27'36", Hickman County, Hydrologic Unit 06040003, on downstream right bank side of bridge on US Highway 48/100, at Defeated Creek, 0.43 mi northeast of public square in Centerville, 3.5 mi downstream from Swan Creek and at mile 72.6.

DRAINAGE AREA.--2,048 mi².

PERIOD OF RECORD.--April 1919 to September 1955, published as "at Centerville." May 2001 to current year.

GAGE.--Data collection platform. Datum of gage is 447.76 ft above NGVD of 1929.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 14, 1948, (from graph through bi-hourly gage readings) at site downstream, 03602000 Duck River at Centerville, TN, 37.58 ft (discharge 97,700 ft³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	1030	40,800	27.36	Mar 20	2100	44,200	28.80
Jan 26	0530	*53,500	*32.72	Apr 2	0800	36,400	25.39

Minimum discharge, 407 ft³/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	656	977	26300	2110	8090	1280	34000	1730	781	613	693	523
2	593	953	11700	1910	7680	1200	36000	3140	865	594	634	494
3	552	927	6620	1710	7360	1110	28900	5330	780	629	585	494
4	520	910	4670	1570	5100	1030	12400	11600	695	644	565	483
5	546	884	3670	1490	4160	965	8850	17300	666	610	559	470
6	898	862	3100	1520	3540	924	6570	15700	720	578	545	459
7	1140	840	2810	1520	3140	877	5230	9600	670	559	523	457
8	949	825	5660	1430	3610	833	4590	7100	990	553	498	445
9	732	813	8330	1490	4240	839	4210	5380	1400	579	488	451
10	649	803	8900	1520	3880	912	3810	3650	1030	598	476	465
11	605	797	7090	1490	3470	870	3340	3000	846	752	476	446
12	1060	782	6120	1450	3170	1620	2590	2610	780	821	472	435
13	2060	772	7710	1360	2870	5060	2270	2710	774	913	463	425
14	9450	764	10500	1320	2560	6120	2060	5270	788	813	468	424
15	10500	755	13400	1290	2330	4760	1900	5670	772	1320	509	431
16	8540	749	12200	1240	2150	3820	1760	4300	739	1660	635	479
17	4800	740	8270	1200	1980	21700	1630	3020	727	1190	602	543
18	3090	734	6800	1250	1730	41300	1670	2510	713	905	652	539
19	2340	736	7270	1870	1500	42200	1520	2250	687	774	565	536
20	1920	751	6270	5500	1700	43200	1400	2370	662	703	580	584
21	1620	744	4840	9850	2070	42300	1300	2210	638	655	579	634
22	1400	729	3710	7060	2030	27300	1240	1680	611	633	693	694
23	1240	723	3390	11100	2060	12700	1150	1400	590	670	658	655
24	1130	778	3840	37100	1800	9060	1130	1240	578	1090	670	872
25	1150	940	5230	51100	1610	7410	1250	1130	650	931	831	1050
26	1180	936	4370	53100	1550	6830	1230	1120	728	1080	744	1230
27	1050	1300	3530	51900	1480	7170	1130	1040	723	927	646	5140
28	1030	3050	3070	47700	1350	7540	1170	946	776	762	591	6890
29	1100	13700	2750	33400	---	5980	1280	866	721	740	585	6270
30	1050	38800	2490	11700	---	6460	1220	817	652	770	559	3370
31	1010	---	2280	9050	---	19800	---	786	---	803	549	---
TOTAL	64560	78074	206890	357300	88210	333170	176800	127475	22752	24869	18093	36388
MEAN	2083	2602	6674	11530	3150	10750	5893	4112	758.4	802.2	583.6	1213
MAX	10500	38800	26300	53100	8090	43200	36000	17300	1400	1660	831	6890
MIN	520	723	2280	1200	1350	833	1130	786	578	553	463	424
(+)	-1900	-8700	-1200	+2200	-800	+16700	-3300	+1400	-1500	-2700	-3000	-1500
MEAN(+)	2020	2310	6640	11600	3120	11300	5780	4160	708	715	487	1160
CFSM(+)	.99	1.13	3.24	5.66	1.52	5.52	2.82	2.03	.35	.35	.24	.57
IN. (+)	1.14	1.26	3.74	6.53	1.59	6.35	3.15	2.34	.39	.40	.27	.63

WTR YR 2002 MEAN(+) 4190 CFSM(+) 2.05 IN. (+) 27.79

(+) Change in contents, in cfs-days in Normandy Lake.

(*) Adjusted for chage in content.

NOTE.--Contents (cfs-days) for adjustments furnished by Tennessee Valley Authority.

03601990 DUCK RIVER AT HIGHWAY 100 AT CENTERVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

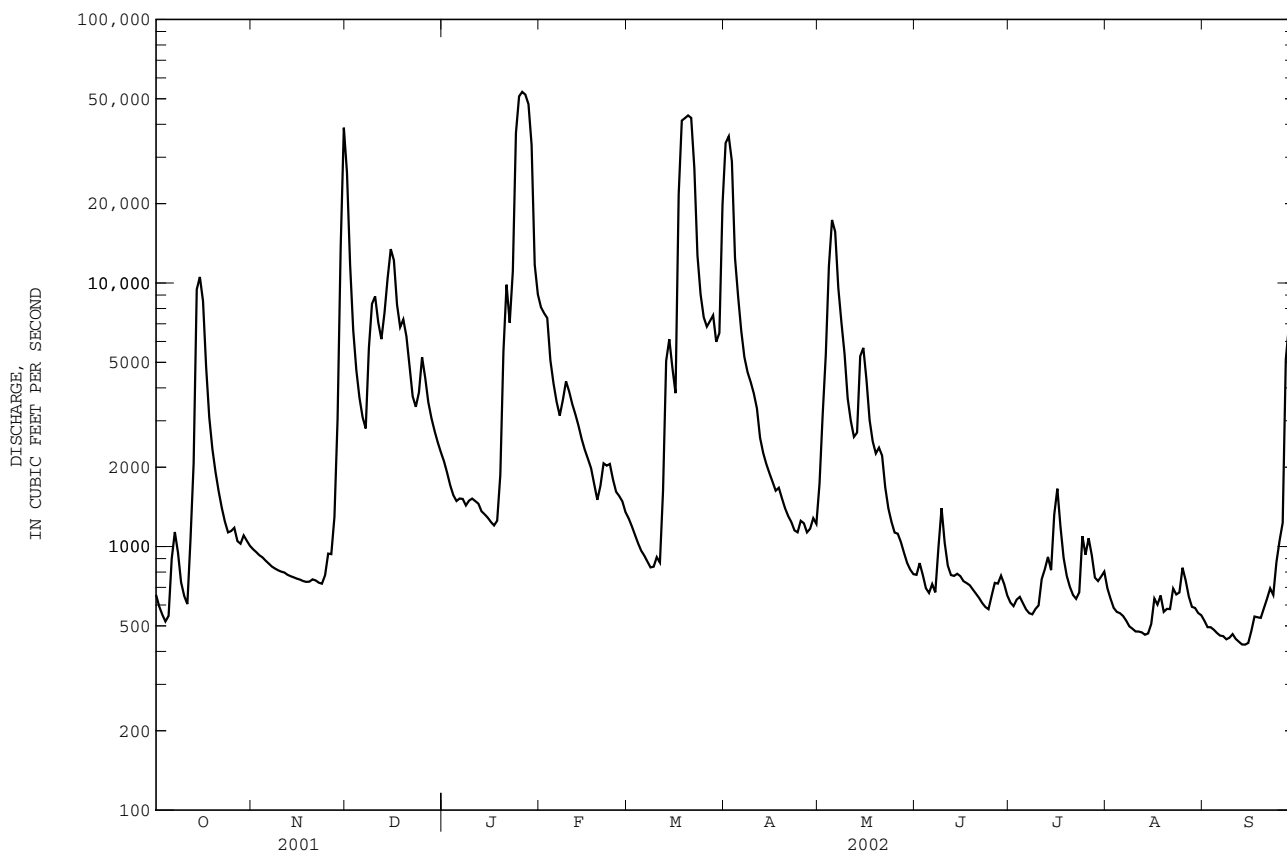
MEAN	2083	2602	6674	11530	3150	10750	5893	2594	1093	843.6	1284	975.0
MAX	2083	2602	6674	11530	3150	10750	5893	4112	1427	885	1984	1213
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2001	2001	2001	2002
MIN	2083	2602	6674	11530	3150	10750	5893	1077	758	802	584	737
(WY)	2002	2002	2002	2002	2002	2002	2002	2001	2002	2002	2002	2001

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

ANNUAL TOTAL	1534581											
ANNUAL MEAN	4204									4204		
HIGHEST ANNUAL MEAN										4204		2002
LOWEST ANNUAL MEAN										4204		2002
HIGHEST DAILY MEAN	53100	Jan 26								53100	Jan 26	2002
LOWEST DAILY MEAN	424	Sep 14								424	Sep 14	2002
ANNUAL SEVEN-DAY MINIMUM	440	Sep 9								440	Sep 9	2002
MAXIMUM PEAK FLOW	53500	Jan 26								53500	Jan 26	2002
MAXIMUM PEAK STAGE	32.72	Jan 26								32.72	Jan 26	2002
INSTANTANEOUS LOW FLOW	407	Sep 14								407	Sep 14	2002
10 PERCENT EXCEEDS	8960									8960		
50 PERCENT EXCEEDS	1220									1220		
90 PERCENT EXCEEDS	559									559		



TENNESSEE RIVER BASIN

03602219 PINEY RIVER AT CEDAR HILL, TN

LOCATION.--Lat 35°59'43", long 87°26'22", Dickson County, Hydrologic Unit 06040003, on right bank 300 ft upstream of Interstate Highway 40 bridge, 0.2 mi southeast of Cedar Hill, 0.5 mi upstream from Double Branch, and at mile 22.

DRAINAGE AREA.--46.6 mi².

PERIOD OF RECORD.--October 1987 to current year, discharge for stage of 7.00 ft and below only.

GAGE.--Data collection platform. Datum of gage is 552.20 ft above NGVD of 1929.

REMARKS.--No estimated daily discharges. Records good. The City of Dickson diverts water for municipal water supply at confluence of West Piney River, 1.6 mi upstream from gage. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 19.78 ft, May 27, 1991; minimum discharge, 6.8 ft³/s, Oct. 2, 3, 4, 5.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 19.70 ft, Mar. 17; minimum discharge, 6.8 ft³/s, Oct. 2, 3, 4, 5.

DISCHARGE FROM THE DCP, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	14	273	60	241	51	314	110	35	24	21	18
2	7.1	14	214	57	174	51	269	70	35	23	20	18
3	7.0	14	152	53	147	52	188	63	34	24	14	17
4	7.0	14	119	50	125	49	147	69	32	24	19	17
5	10	13	100	49	109	48	123	63	33	23	19	18
6	19	13	90	49	102	47	107	60	52	23	18	17
7	9.6	12	85	46	100	46	97	56	37	22	19	17
8	9.1	12	143	45	95	45	92	52	33	21	18	17
9	8.2	12	137	43	89	62	92	50	32	22	18	17
10	7.9	12	116	42	84	52	81	48	31	27	17	17
11	9.5	12	100	48	80	50	74	46	30	30	18	17
12	93	11	129	45	75	62	71	44	29	25	18	17
13	123	11	321	43	72	65	68	189	29	28	18	16
14	294	11	317	42	68	63	65	166	29	25	18	17
15	169	11	249	41	66	76	62	113	28	24	23	18
16	81	11	183	39	65	81	58	89	29	23	52	21
17	52	11	190	39	62	285	55	79	28	22	29	19
18	41	11	172	46	60	296	52	72	27	22	23	19
19	32	11	141	98	58	326	51	63	26	22	22	19
20	28	11	117	100	64	308	49	58	26	21	21	20
21	24	11	101	91	60	290	48	52	25	21	20	26
22	22	11	93	82	58	287	50	49	25	22	19	20
23	20	11	193	258	56	222	46	46	25	36	18	18
24	20	23	145	332	54	175	60	44	25	28	18	18
25	28	17	119	336	53	144	55	42	24	23	21	18
26	19	14	105	283	58	263	49	50	24	21	21	88
27	18	161	95	202	54	223	47	43	25	21	20	181
28	17	110	86	158	52	175	47	40	28	20	19	85
29	16	291	78	132	---	162	45	39	25	20	18	54
30	15	284	69	127	---	222	44	38	24	21	18	43
31	14	---	65	114	---	281	---	36	---	22	18	---
TOTAL	1228.1	1174	4497	3150	2381	4559	2606	2039	885	730	635	907
MEAN	39.62	39.13	145.1	101.6	85.04	147.1	86.87	65.77	29.50	23.55	20.48	30.23
MAX	294	291	321	336	241	326	314	189	52	36	52	181
MIN	7.0	11	65	39	52	45	44	36	24	20	14	16
CFSM	0.85	0.84	3.11	2.18	1.82	3.16	1.86	1.41	0.63	0.51	0.44	0.65
IN.	0.98	0.94	3.59	2.51	1.90	3.64	2.08	1.63	0.71	0.58	0.51	0.72

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TENNESSEE RIVER BASIN

03602500 PINEY RIVER AT VERNON, TN

LOCATION.--Lat 35°52'17", long 87°30'00", Hickman County, Hydrologic Unit 06040003, on left bank upstream from county highway bridge, 375 ft upstream from Pretty Creek, 0.2 mi northwest of Vernon, 2.3 mi downstream from Mill Creek, 6.5 mi north of Centerville, and at mile 8.3.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--July 1925 to December 1993. January 1994 to October 2000, crest-stage partial record station. November 2000 to current year.

REVISED RECORDS.--WSP 758: 1927(M). WSP 823: Drainage area. WSP 1306: Drainage area at site used Feb. 9, 1931, to May 10, 1934. WSP 1436: 1926(M), 1927, 1929, 1930-31(M), 1932, 1934(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 461.72 ft above NGVD of 1929. Prior to May 11, 1934, nonrecording gage; July 3, 1925, to Feb. 8, 1931, at site 350 ft upstream at datum 3.17 ft higher; Feb. 9, 1931, to May 10, 1934, at site 0.4 mi downstream at datum 0.40 ft higher. May 11, 1934, to Sept. 30, 1970, water-stage recorder at site 350 ft upstream; prior to June 29, 1965, at datum 3.17 ft higher, and 2.17 ft higher thereafter.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Flood of March 1897 reached a stage of 20.7 ft, present site and datum, discharge, 37,000 ft³/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	0400	7,190	11.54	Mar 18	0115	*25,600	*18.88
Nov 29	2315	19,700	16.96	Mar 20	1230	11,000	13.51
Jan 24	1245	12,100	14.05	Mar 31	1415	5,380	10.39
Mar 17	1015	4,200	9.54				

Minimum discharge, 55 ft³/s, Oct. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	101	1660	259	720	196	1980	447	166	105	95	73
2	58	99	972	241	642	196	1210	381	162	102	92	73
3	57	102	701	228	580	197	897	352	156	103	89	72
4	57	97	561	215	521	186	721	394	150	102	86	70
5	59	93	464	207	457	180	618	398	e190	99	84	70
6	91	91	405	206	427	176	546	372	e230	97	83	69
7	73	89	375	196	416	174	495	345	e255	94	81	69
8	65	88	536	185	392	170	463	318	262	130	79	67
9	64	87	626	179	368	199	451	297	223	116	78	66
10	62	85	551	176	355	229	399	282	198	e200	77	65
11	68	85	478	193	330	214	366	261	182	e290	77	64
12	293	83	450	181	313	261	347	244	172	134	76	64
13	417	82	2040	172	299	295	329	1050	171	163	76	63
14	3200	81	1600	167	281	302	327	821	161	150	76	64
15	805	81	1100	162	271	316	310	573	149	122	83	66
16	469	80	822	155	265	358	294	464	143	112	138	70
17	338	80	764	153	252	4070	283	412	138	108	185	70
18	271	79	730	173	239	9720	269	390	131	104	99	73
19	230	80	636	292	230	2590	257	332	126	106	90	72
20	198	82	548	392	252	5820	249	299	122	100	86	77
21	176	78	477	373	237	2450	242	273	118	97	84	97
22	157	77	433	339	224	1350	235	254	115	96	81	78
23	144	78	585	645	216	994	224	238	114	128	81	72
24	140	100	552	5480	208	813	235	223	114	203	81	69
25	171	146	489	2340	207	690	253	210	111	122	82	71
26	141	109	445	1260	221	981	223	235	110	108	85	261
27	127	675	411	887	209	813	215	209	111	101	80	1550
28	119	682	379	696	200	698	253	194	120	97	79	484
29	113	9860	347	594	---	635	226	187	111	95	77	276
30	109	7330	312	561	---	747	217	182	108	94	75	199
31	104	---	287	504	---	2900	---	173	---	100	74	---
TOTAL	8434	20880	20736	17811	9332	38920	13134	10810	4619	3778	2709	4534
MEAN	272.1	696.0	668.9	574.5	333.3	1255	437.8	348.7	154.0	121.9	87.39	151.1
MAX	3200	9860	2040	5480	720	9720	1980	1050	262	290	185	1550
MIN	57	77	287	153	200	170	215	173	108	94	74	63
CFSM	1.41	3.61	3.47	2.98	1.73	6.51	2.27	1.81	0.80	0.63	0.45	0.78
IN.	1.63	4.02	4.00	3.43	1.80	7.50	2.53	2.08	0.89	0.73	0.52	0.87

e Estimated

03602500 PINEY RIVER AT VERNON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2002, BY WATER YEAR (WY)

MEAN	103.4	177.9	359.7	493.4	565.2	619.8	498.7	393.9	212.8	139.3	113.5	106.3
MAX	272	749	2535	1930	1704	2091	1393	1715	1041	340	258	685
(WY)	2002	1958	1927	1937	1932	1975	1927	1983	1974	1972	1938	1979
MIN	52.5	64.9	66.2	84.4	115	109	137	84.9	59.8	61.4	49.3	47.0
(WY)	1932	1957	1936	1940	1941	1941	1967	1941	1941	1942	1936	1936

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

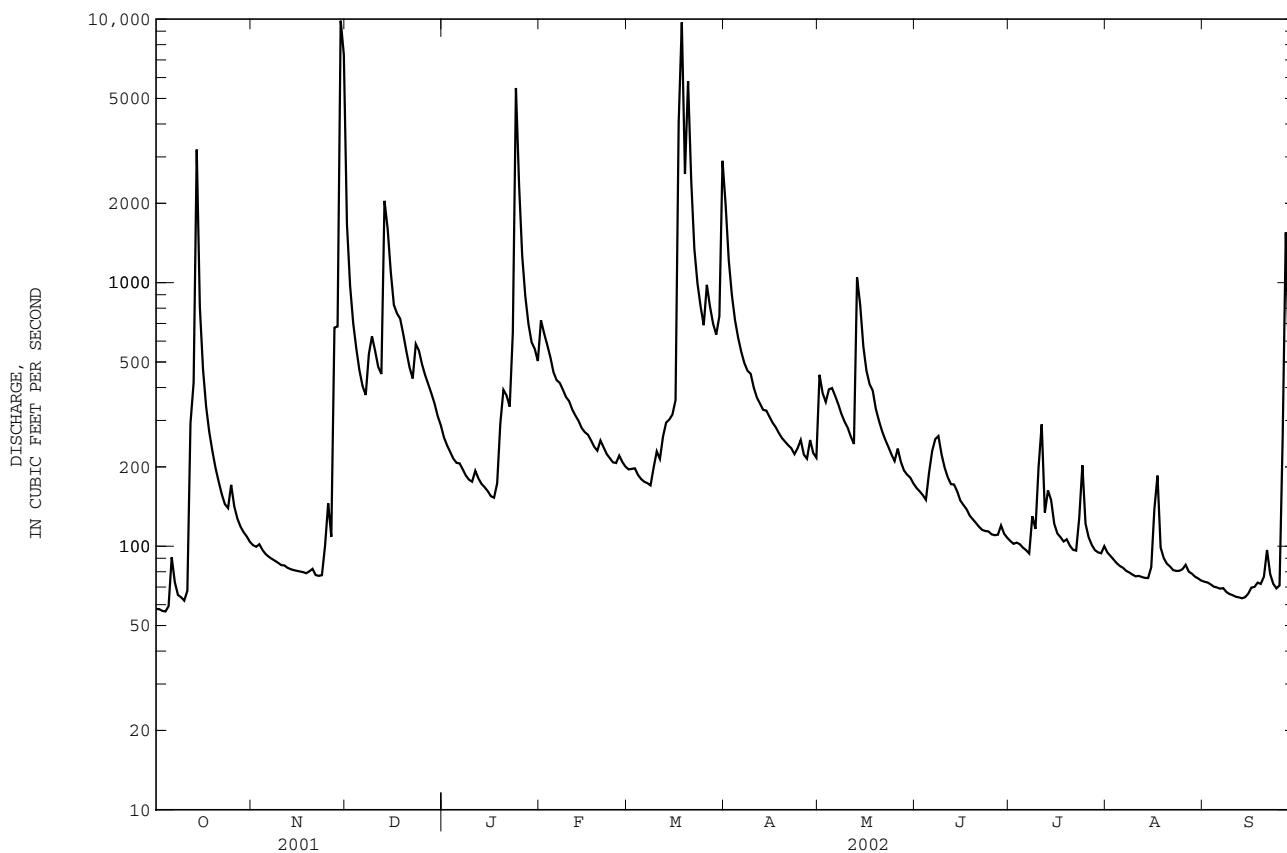
FOR 2002 WATER YEAR

WATER YEARS 1925 - 2002

ANNUAL TOTAL	101786	155697	
ANNUAL MEAN	278.9	426.6	316.6
HIGHEST ANNUAL MEAN			684
LOWEST ANNUAL MEAN			102
HIGHEST DAILY MEAN	9860	9860	31200
LOWEST DAILY MEAN	57	57	38
ANNUAL SEVEN-DAY MINIMUM	58	65	38
MAXIMUM PEAK FLOW		25600	49400
MAXIMUM PEAK STAGE		18.88	24.42
INSTANTANEOUS LOW FLOW		a55	b35
ANNUAL RUNOFF (CFSM)	1.44	2.21	1.64
ANNUAL RUNOFF (INCHES)	19.62	30.01	22.29
10 PERCENT EXCEEDS	472	709	619
50 PERCENT EXCEEDS	120	198	151
90 PERCENT EXCEEDS	70	76	73

a Also occurred Oct. 5.

b Also occurred Sept. 20, 1936.



TENNESSEE RIVER BASIN

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN

LOCATION.--Lat 35°29'45", long 87°49'58", Perry County, Hydrologic Unit 06040004, on right bank 0.4 mi downstream from Little Opossum Creek, 0.5 mi downstream from bridge on State Highway 13, 1.3 mi north of Flat Woods, 3.9 mi upstream from Sinking Creek, and at mile 58.7.

DRAINAGE AREA.--447 mi².

PERIOD OF RECORD.--May 1920 to current year.

REVISED RECORDS.--WSP 758: 1933. WSP 803: 1935. WSP 823: Drainage area. WSP 1436: 1921(M), 1922-24, 1925(M), 1927(M), 1934(M), WRD TN-71: 1970.

GAGE.--Data collection platform. Datum of gage is 513.58 ft above NGVD of 1929, determined by levels run by Army Engineers December 1926 and July 1927, from BM-39, datum of 1929. Prior to May 27, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1897, that of May 27, 1991.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	1900	9,030	12.94	Mar 18	unknown	12,300	15.55
Nov 30	0630	27,100	23.97	Apr 1	0115	9,060	12.97
Jan 24	1900	*29,500	*24.84	May 4	1645	5,740	9.94

Minimum daily discharge, 172 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	328	5590	515	1170	696	7290	700	422	277	417	215
2	244	319	2310	495	1160	685	3060	891	395	292	341	210
3	238	313	1570	484	1080	683	2010	1320	376	287	207	207
4	232	306	1250	475	1030	647	1530	4600	363	336	263	203
5	229	300	1060	459	975	622	1260	3530	362	296	247	198
6	239	291	907	459	927	608	1080	1880	382	267	235	191
7	282	285	825	473	937	599	973	1440	362	252	229	186
8	274	282	1070	456	956	587	908	1210	350	243	218	181
9	255	282	1780	432	944	592	911	1050	340	332	210	179
10	244	290	1560	420	921	639	825	955	331	286	208	178
11	243	300	1250	420	908	621	728	910	324	273	217	176
12	463	298	1090	416	868	1080	684	811	321	296	222	174
13	1960	294	1410	403	819	2000	663	867	323	357	209	172
14	6760	291	2870	396	776	1630	630	1330	353	454	214	173
15	4360	288	2820	389	745	e1350	601	1110	352	516	220	175
16	1940	286	1850	376	729	e3300	574	943	326	475	256	181
17	1270	283	1470	367	704	e8000	550	828	313	403	270	188
18	975	280	1460	368	678	e12000	538	784	307	335	278	193
19	806	278	1310	503	656	7420	517	747	297	302	266	200
20	688	281	1130	1090	801	3460	500	652	287	315	239	215
21	602	281	997	1060	1080	3080	476	602	279	307	253	231
22	536	276	895	908	979	2150	470	555	271	280	259	250
23	487	274	892	5820	909	1670	461	523	264	311	236	228
24	452	295	943	25400	857	1400	445	503	261	342	272	210
25	455	380	867	e15000	806	1230	479	481	272	533	346	202
26	483	408	774	e7000	801	1250	484	476	343	450	302	278
27	434	480	715	e4000	781	1370	447	470	330	360	258	2460
28	398	1310	651	1900	730	1190	455	443	333	310	246	1670
29	371	7770	610	1590	---	1080	495	435	313	279	235	966
30	354	22300	574	1390	---	1200	512	417	290	264	226	655
31	339	---	542	1210	---	4780	---	466	---	327	221	---
TOTAL	26866	39649	43042	74674	24727	67619	30556	31929	9842	10446	7900	10945
MEAN	866.6	1322	1388	2409	883.1	2181	1019	1030	328.1	337.0	254.8	364.8
MAX	6760	22300	5590	25400	1170	12000	7290	4600	422	533	417	2460
MIN	229	274	542	367	656	587	445	417	261	243	208	172
MED	434	293	1090	484	888	1230	588	811	328	311	246	201
CFSM	1.94	2.96	3.11	5.39	1.98	4.88	2.28	2.30	0.73	0.75	0.57	0.82
IN.	2.24	3.30	3.58	6.21	2.06	5.63	2.54	2.66	0.82	0.87	0.66	0.91

e Estimated

03604000 BUFFALO RIVER NEAR FLAT WOODS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2002, BY WATER YEAR (WY)

MEAN	288.6	528.1	928.5	1218	1363	1477	1174	879.3	464.0	369.7	288.4	273.7
MAX	1418	2554	3568	3854	4901	4405	3034	5227	1642	1824	1008	1286
(WY)	1933	1958	1927	1937	1948	1973	1964	1991	1974	1932	1923	1979
MIN	112	174	213	234	316	458	303	210	146	121	117	94.2
(WY)	1932	1925	1964	1940	1926	1966	1986	1942	1941	1943	1925	1925

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

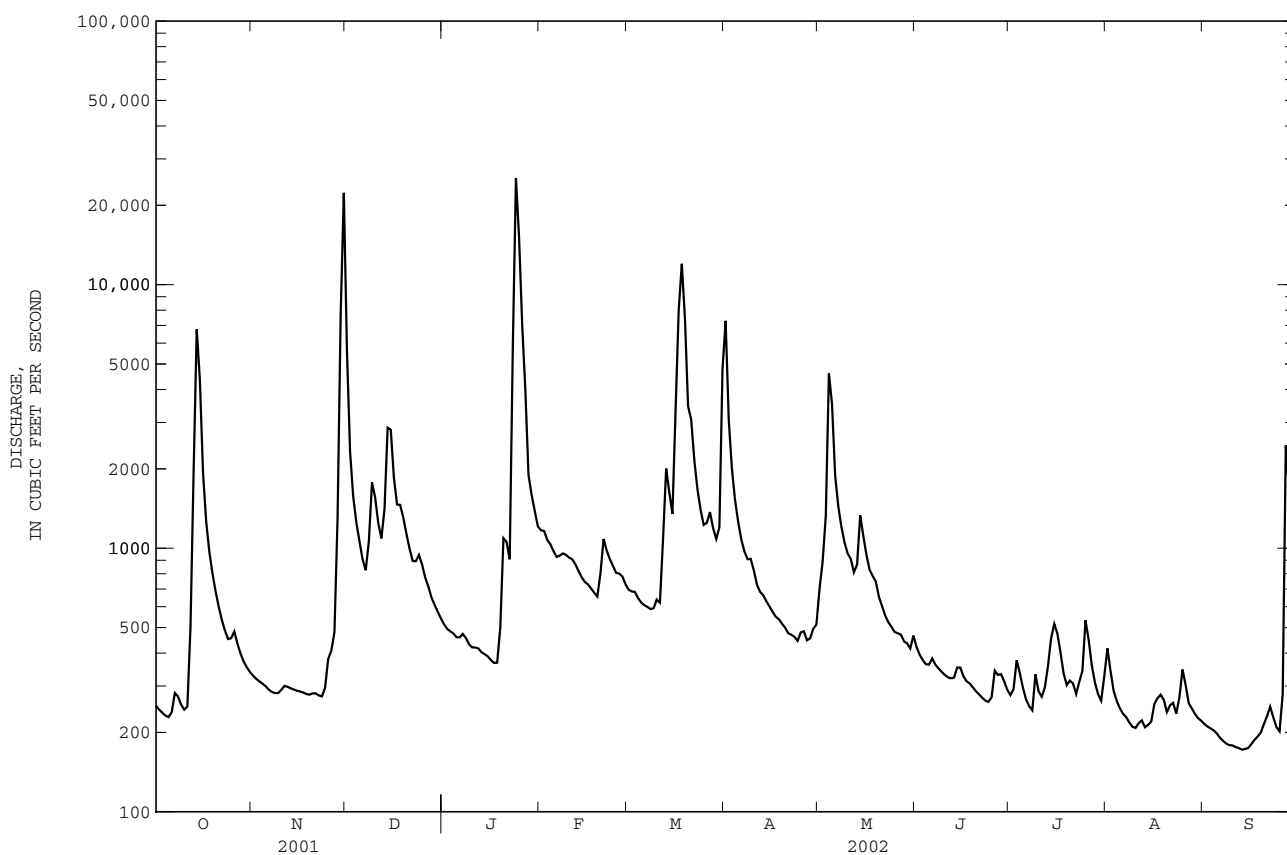
WATER YEARS 1920 - 2002

ANNUAL TOTAL	327658			378195								
ANNUAL MEAN	897.7			1036						766.6		
HIGHEST ANNUAL MEAN										1583		1973
LOWEST ANNUAL MEAN										323		1942
HIGHEST DAILY MEAN	22300	Nov 30		25400	Jan 24					75800	May 27	1991
LOWEST DAILY MEAN	229	Oct 5		172	Sep 13					65	Sep 9	1925
ANNUAL SEVEN-DAY MINIMUM	243	Sep 30		175	Sep 9					71	Sep 5	1925
MAXIMUM PEAK FLOW				29500	Jan 24					a96300	May 27	1991
MAXIMUM PEAK STAGE				24.84	Jan 24					b32.19	May 27	1991
INSTANTANEOUS LOW FLOW				c172	Sep 13					65	Sep 9	1925
ANNUAL RUNOFF (CFSM)	2.01			2.32						1.71		
ANNUAL RUNOFF (INCHES)	27.27			31.47						23.30		
10 PERCENT EXCEEDS	1460			1650						1440		
50 PERCENT EXCEEDS	476			470						395		
90 PERCENT EXCEEDS	282			232						179		

a From rating curve extended above 50,000 ft³/s, on basis of slope-area and contracted opening measurements and rainfall-runoff study.

b From high-water mark in gage house.

c Also occurred Sept. 14.



03605078 CYPRESS CREEK AT CAMDEN, TN

LOCATION.--Lat 36°02'49", long 88°04'33", Benton County, Hydrologic Unit 06040005, on left bank, adjacent to southwest corner of third sewage lagoon at Camden Sewage Treatment Plant, 1.5 mi southeast of Camden, and 1.4 mi upstream from Kentucky Lake.

DRAINAGE AREA.--27.3 mi².

PERIOD OF RECORD.--January 1992 to current year, discharge for stage of 4.30 ft and below only.

GAGE.--Water-stage recorder. Datum of gage is 360.00 ft above NGVD of 1929, determined by the city of Camden, Tennessee.

REMARKS.--No estimated daily discharges. Records good. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; maximum gage height, 11.41 ft, Sept. 27, 2002; minimum discharge, 0.0 ft³/s, Sept. 2-19, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; maximum gage height, 11.41 ft, Sept. 27; minimum discharge, 0.32 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	6.0	---	15	---	15	---	16	---	3.4	2.4	1.4
2	1.1	10	68	13	49	16	---	15	77	3.6	2.0	1.4
3	0.98	31	44	14	38	15	56	12	40	4.5	1.5	1.3
4	0.87	13	34	13	29	11	40	14	23	4.3	1.3	1.2
5	3.6	9.9	27	12	26	11	33	13	14	4.1	1.2	1.2
6	7.8	7.8	28	23	25	11	28	10	13	4.0	1.1	1.2
7	2.3	7.3	---	17	37	11	25	8.5	13	3.5	1.0	0.97
8	1.7	6.5	---	14	32	11	25	6.6	12	3.4	0.94	0.82
9	1.5	6.0	---	13	26	20	47	6.2	8.5	3.2	0.85	0.76
10	1.9	5.7	65	14	25	14	32	6.6	6.7	3.4	0.83	0.77
11	23	5.7	42	25	20	12	26	6.0	6.2	6.6	0.78	0.70
12	12	5.7	---	16	18	32	23	5.6	6.1	5.2	0.71	0.70
13	---	5.7	---	14	16	25	20	---	5.8	3.9	0.74	0.70
14	---	5.4	---	13	15	19	19	---	5.7	3.4	1.0	0.81
15	---	5.3	---	12	15	16	18	47	5.3	3.4	1.2	1.4
16	37	5.3	---	11	17	30	15	22	5.1	3.1	2.0	1.3
17	21	5.3	---	11	14	---	13	---	4.9	2.7	4.0	1.4
18	15	5.3	---	32	13	---	13	---	4.9	2.6	2.7	1.4
19	12	7.9	59	---	14	---	12	95	4.6	2.5	2.3	1.3
20	12	10	41	70	---	---	11	---	4.5	2.3	2.0	4.1
21	9.7	6.9	32	42	37	---	10	---	4.1	2.1	1.9	13
22	7.9	6.1	---	---	25	83	11	---	3.9	2.1	1.9	7.1
23	7.4	5.9	---	---	22	54	8.9	---	3.7	5.4	1.8	2.9
24	14	---	---	---	19	42	11	---	3.4	19	1.7	0.98
25	27	---	53	---	17	36	15	---	3.7	6.3	3.2	0.40
26	10	35	39	---	30	---	9.3	---	5.0	2.9	8.1	---
27	7.8	---	32	---	19	---	8.3	29	5.0	2.1	5.0	---
28	6.9	---	27	36	16	64	33	---	4.6	1.8	2.8	---
29	6.8	---	24	37	---	---	31	---	4.2	1.7	2.4	12
30	6.5	---	18	39	---	---	15	---	3.7	1.9	1.9	5.8
31	6.3	---	16	34	---	---	---	---	---	3.0	1.7	---
TOTAL	265.15	218.7	649	540	614	548	608.5	312.5	301.6	121.4	62.95	67.01
MEAN	9.470	9.113	38.18	22.50	23.62	26.10	21.73	19.53	10.40	3.916	2.031	2.482
MAX	37	35	68	70	49	83	56	95	77	19	8.1	13
MIN	0.87	5.3	16	11	13	11	8.3	5.6	3.4	1.7	0.71	0.40
CFSM	0.35	0.33	1.40	0.82	0.87	0.96	0.80	0.72	0.38	0.14	0.07	0.09
IN.	0.36	0.30	0.88	0.74	0.84	0.75	0.83	0.43	0.41	0.17	0.09	0.09

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TENNESSEE RIVER BASIN

03606500 BIG SANDY RIVER AT BRUCETON, TN

LOCATION.--Lat 36°02'19", long 88°13'42", Carroll County, Hydrologic Unit 06040005, on right bank on downstream end of abutment of county bridge, 700 ft downstream from bridge on U.S. Highway 70, 0.6 mi upstream from Cherry Creek, 0.9 mi east of Bruceton, and at mile 31.6

DRAINAGE AREA.--205 mi².

PERIOD OF RECORD.--July 1929 to November 1988, January 2002 to September 2002.

REVISED RECORDS.--WSP 853: Drainage area. WSP 923: 1929-35.

GAGE.--Data collection platform. Datum of gage is 380.58 ft above NGVD of 1929. Prior to March 1, 1940, nonrecording gage at same site

REMARKS.--Records good except for estimated discharges, which are poor. Periodic observations of water temperature and specific conductance are published in the report as miscellaneous water-quality data.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1897 reached a stage of 18 ft, discharge 25,000 ft³/s, and flood in March 1919 reached a stage of 17 ft, discharge, 21,000 ft³/s, from reports by Tennessee Valley Authority.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 26	1036	2,390	12.15	Mar 31	2100	2,010	11.60
Mar 19	0100	9,760	15.27	Sep 28	0445	*12,500	*15.76
Mar 22	1130	2,220	11.93				

Minimum discharge, 54 ft³/s, on several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR JANUARY 2002 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	167	647	154	1880	149	176	71	84	69
2	---	---	---	159	570	150	1720	160	144	75	71	67
3	---	---	---	161	301	162	613	142	128	79	66	63
4	---	---	---	153	248	144	288	178	e120	80	62	61
5	---	---	---	152	207	138	234	168	e118	73	59	59
6	---	---	---	223	205	136	211	132	e160	70	57	58
7	---	---	---	232	272	137	196	115	156	70	56	58
8	---	---	---	180	311	135	202	105	125	71	56	56
9	---	---	---	169	239	163	316	104	e105	83	56	55
10	---	---	---	e168	220	229	231	115	e100	141	56	55
11	---	---	---	e230	198	165	192	134	e115	218	94	54
12	---	---	---	e215	182	361	182	117	e140	104	76	54
13	---	---	---	e175	170	506	177	424	e150	138	61	54
14	---	---	---	e168	161	277	171	342	151	159	77	58
15	---	---	---	e162	160	197	164	169	e115	100	87	75
16	---	---	---	e160	187	245	152	126	e96	83	99	72
17	---	---	---	e160	177	1230	147	350	e90	74	188	69
18	---	---	---	e450	161	4640	165	410	e90	71	112	70
19	---	---	---	682	157	7200	145	194	e92	73	85	64
20	---	---	---	590	405	3410	134	152	e90	97	77	90
21	---	---	---	309	301	2530	126	135	e88	77	72	349
22	---	---	---	225	195	2180	119	123	e85	69	67	156
23	---	---	---	457	172	967	110	122	e83	87	63	93
24	---	---	---	1720	162	346	118	120	e81	104	61	75
25	---	---	---	2120	158	271	213	120	e95	89	309	69
26	---	---	---	2300	212	884	146	204	e100	77	495	734
27	---	---	---	1210	185	707	127	210	88	69	411	7600
28	---	---	---	339	161	357	197	186	90	64	119	10300
29	---	---	---	272	---	280	138	436	87	62	86	4200
30	---	---	---	288	---	490	114	448	83	74	77	1700
31	---	---	---	274	---	1630	---	267	---	142	72	---
TOTAL	---	---	---	14270	6724	30421	8928	6157	3341	2844	3411	26537
MEAN	---	---	---	460.3	240.1	981.3	297.6	198.6	111.4	91.74	110.0	884.6
MAX	---	---	---	2300	647	7200	1880	448	176	218	495	10300
MIN	---	---	---	152	157	135	110	104	81	62	56	54
CFSM	---	---	---	2.25	1.17	4.79	1.45	0.97	0.54	0.45	0.54	4.31
IN.	---	---	---	2.59	1.22	5.52	1.62	1.12	0.61	0.52	0.62	4.82

e Estimated

03606500 BIG SANDY RIVER AT BRUCETON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	121.1	259.1	350.8	508.8	443.7	502.8	396.6	304.0	181.1	152.3	126.9	147.3
MAX	534	995	1011	2712	1235	1478	1292	1423	956	929	613	885
(WY)	1973	1958	1950	1937	1950	1975	1979	1983	1974	1972	1971	2002
MIN	42.0	65.7	88.1	90.8	96.4	84.6	89.2	51.6	41.8	32.9	39.7	35.7
(WY)	1944	1955	1964	1963	1941	1941	1967	1941	1941	1943	1956	1942

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1929 - 2002

ANNUAL TOTAL	102633		
ANNUAL MEAN	375.9	290.1	
HIGHEST ANNUAL MEAN		632	1950
LOWEST ANNUAL MEAN		77.8	1941
HIGHEST DAILY MEAN	10300	Sep 28	15500 Jan 21 1935
LOWEST DAILY MEAN	54	Sep 11	28 Aug 17 1943
ANNUAL SEVEN-DAY MINIMUM	55	Sep 7	29 Aug 17 1943
MAXIMUM PEAK FLOW	a19600	Nov 29	a19600 Nov 29 2001
MAXIMUM PEAK STAGE	b16.60	Nov 29	b16.60 Nov 29 2001
INSTANTANEOUS LOW FLOW	c54	Sep 9	c28 Aug 17 1943
ANNUAL RUNOFF (CFSM)	1.83		1.41
ANNUAL RUNOFF (INCHES)	18.62		19.22
10 PERCENT EXCEEDS	502		640
50 PERCENT EXCEEDS	150		124
90 PERCENT EXCEEDS	67		53

a From rating curve extended above 9,200 ft³/s.

b Peak stage from crest-stage gage, outside period of recorded stage.

c Also occurred Aug. 18, 19, 22, Sept. 1, 1943.

RESERVOIRS IN TENNESSEE RIVER BASIN

- 03468500 DOUGLAS LAKE.--Lat 35°57'40", long 83°32'20", Sevier County, Hydrologic Unit 06010107, at Douglas Dam on French Broad River, 6.5 mi north of Sevierville, and at mile 32.3. DRAINAGE AREA, 4,541 mi². PERIOD OF RECORD, February 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir formed by concrete main dam and 10 saddle dams. Spillway equipped with 11 radial gates, each 32 ft high by 40 ft wide and 8 sluice gates 10 ft high by 5.67 ft wide. Closure of dam was made Feb. 19, 1943; water in reservoir first reached minimum pool elevation Feb. 25, 1943. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,002.00 ft, top of gates, is 743,600 cfs-days, of which 631,200 cfs-days is controlled storage above elevation 940.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 760,000 cfs-days, July 25, 1949, elevation, 1,001.79 ft; minimum after first filling, 1,000 cfs-days, Jan. 16, 1956, elevation, 883.7 ft, estimated.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 598,200 cfs-days, June 10, elevation, 992.69 ft; minimum, 106,300 cfs-days, Dec. 21, elevation, 940.08 ft.
- 03476000 SOUTH HOLSTON LAKE.--Lat 36°31'15", long 82°05'11", Sullivan County, Hydrologic Unit 06010102, 470 ft upstream from South Holston Dam on South Fork Holston River, 7.0 mi southeast of Bristol, Virginia-Tennessee, and at mile 49.8. DRAINAGE AREA, 703 mi². PERIOD OF RECORD, November 1950 to current year. GAGE, water-stage recorder. Datum of gage is sea level. Prior to May 11, 1951, non-recording gage at same site and datum.
- REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Nov. 20, 1950; water in reservoir first reached minimum pool elevation Jan. 25, 1951. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,742.00 ft, spillway crest, is 385,200 cfs-days, of which 220,800 cfs-days is controlled storage above elevation 1,675.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 363,800 cfs-days, May 10, 1984, elevation, 1,736.86 ft; minimum after first filling, 57,700 cfs-days, Jan. 13, 1956, elevation, 1,614.15 ft.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 327,800 cfs-days, May 14, elevation 1,727.97 ft; minimum, 232,000 cfs-days, Jan. 18, elevation, 1,699.74 ft.
- 03483500 WATAUGA LAKE.--Lat 36°19'20", long 82°07'16", Carter County, Hydrologic Unit 06010103, at Watauga Dam on Watauga River, 5 mi east of Elizabethton, and at mile 36.7. DRAINAGE AREA, 468 mi². PERIOD OF RECORD, December 1948 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir is formed by rock and rolled earthfill dam. Spillway is uncontrolled morning-glory type, 128 ft in diameter with six piers, each 3 ft wide to guide flow spilling into a concrete-lined shaft and tunnel 34 ft in diameter. Closure of dam was made Dec. 1, 1948; water in reservoir first reached minimum pool elevation Dec. 31, 1948. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,975.00 ft, spillway crest, is 341,300 cfs-days, of which 178,500 cfs-days is controlled storage above elevation 1,915.00 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 300,800 cfs-days, Apr. 19, 1987, elevation, 1,963.28 ft; minimum after first filling, 25,100 cfs-days, Jan. 13, 1956, elevation, 1,813.47 ft.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 268,000 cfs-days, May 30, elevation, 1,953.20 ft; minimum, 224,000 cfs-days, Mar. 13, elevation, 1,938.26 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03468500 DOUGLAS LAKE			03476000 SOUTH HOLSTON LAKE			03483500 WATAUGA LAKE		
Sept. 30...	976.24	394,600	-	1,715.14	281,500	-	1,944.28	241,200	-
Oct. 31...	961.34	249,300	-145,300	1,709.88	263,900	-17,600	1,942.74	236,700	-4,500
Nov. 30...	947.74	148,800	-100,500	1,704.54	246,800	-17,100	1,940.51	230,300	-6,400
Dec. 31...	941.52	113,400	-35,400	1,701.95	238,700	-8,100	1,940.33	229,800	-500
CAL YR 2001	-	-	-5,500	-	-	+4,000	-	-	+4,800
Jan. 31...	950.20	164,700	+51,300	1,704.17	245,600	+6,900	1,943.97	240,300	+10,500
Feb. 28...	949.66	161,100	-3,600	1,703.85	244,600	-1,000	1,940.20	229,600	-10,700
Mar. 31...	974.20	372,700	+211,600	1,718.96	294,800	+50,200	1,945.57	244,900	+15,300
Apr. 30...	984.04	484,500	+111,800	1,725.70	319,200	+24,400	1,950.16	258,600	+13,700
May 31...	992.24	591,900	+107,400	1,727.28	325,200	+6,000	1,953.10	267,700	+9,100
June 30...	992.46	595,000	+3,100	1,723.17	309,900	-15,300	1,951.59	263,000	-4,700
July 31...	990.08	562,200	-32,800	1,721.70	304,600	-5,300	1,948.87	254,700	-8,300
Aug. 31...	976.56	398,100	-164,100	1,713.97	277,500	-27,100	1,943.73	239,600	-15,100
Sept. 30...	971.19	341,600	-56,500	1,708.93	260,800	-16,700	1,943.13	237,800	-1,800
WTR YR 2002	-	-	-53,000	-	-	-20,700	-	-	-3,400

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03486800 BOONE LAKE.--Lat 36°26'26", long 82°26'16", Sullivan County, Hydrologic Unit 06010102, at Boone Dam on South Fork Holston River, 0.7 mi northeast of Spurgeon, 1.3 mi downstream from Watauga River, and at mile 18.6. DRAINAGE AREA, 1,840 mi². PERIOD OF RECORD, December 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Dec. 16, 1952; water in reservoir first reached minimum pool elevation Jan. 5, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,385.0 ft, top of gates, is 97,500 cfs-days, of which 74,800 cfs-days is controlled storage above elevation 1,330 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 99,100 cfs-days, May 19, 1964, elevation 1,384.99 ft; minimum after first filling, 21,300 cfs-days, Jan. 23, 1956, elevation, 1,327.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 93,500 cfs-days, July 5, elevation, 1,383.16 ft; minimum, 38,100 cfs-days, Dec. 20, elevation, 1,347.00 ft.

03487000 FORT PATRICK HENRY LAKE.--Lat 36°29'53", long 82°30'32", Sullivan County, Hydrologic Unit 06010102, at Fort Patrick Henry Dam on South Fork Holston River, 0.2 mi upstream from bridge on U. S. Highway 23, 4.5 mi southeast of Kingsport, and at mile 8.2. DRAINAGE AREA, 1,903 mi². PERIOD OF RECORD, October 1953 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by gravity nonover-flow type concrete dam. Spillway is equipped with five radial gates, each 35 ft high by 35 ft wide. Storage began Oct. 27, 1953; water in reservoir first reached minimum pool elevation Dec. 8, 1953. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,263 ft, top of gates, is 13,600 cfs-days, of which 2,200 cfs-days is controlled storage above elevation 1,258 ft, normal minimum pool. Reservoir is used for navigation, flood control and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 14,000 cfs-days, Feb. 11, 1954, elevation, 1,263.80 ft, minimum after first filling, 2,690 cfs-days, Sept. 19, 1986, elevation, 1,226.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,600 cfs-days, June 3, elevation, 1,263.07 ft; minimum, 11,400 cfs-days, Aug. 13, elevation, 1,257.84 ft.

03493500 CHEROKEE LAKE.--Lat 36°10'00", long 83°29'55", Jefferson County, Hydrologic Unit 06010104, at Cherokee Dam on Holston River, 0.3 mi upstream from bridge on State Highway 92, 2.7 mi upstream from Mill Spring Creek, 2.8 mi north of Jefferson City, and at mile 52.3. DRAINAGE AREA, 3,429 mi². PERIOD OF RECORD, December 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with nine radial gates, each 32 ft high by 40 ft wide. Storage began Dec. 5, 1941; water in reservoir first reached minimum pool elevation Jan. 6, 1942. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,075.0 ft, top of gates, is 778,400 cfs-days, of which 580,300 cfs-days is controlled storage above elevation 1,020.0 ft, normal minimum pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 779,400 cfs-days, May 11, 1944, maximum elevation, 1,074.47 ft May 30, 1973; minimum after first filling, 48,400 cfs-days, Jan. 7, 1954, elevation, 980.77 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 644,400 cfs-days, June 3, elevation, 1,065.80 ft; minimum, 251,100 cfs-days, Jan. 18, elevation, 1,027.90 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	03486800 BOONE LAKE			03487000 FORT PATRICK HENRY LAKE			03493500 CHEROKEE LAKE		
Sept. 30...	1,378.60	84,100	-	1,261.01	12,700	-	1,055.00	505,000	-
Oct. 31...	1,372.58	73,000	-11,100	1,259.38	12,000	-700	1,043.60	385,200	-119,800
Nov. 30...	1,353.17	45,000	-28,000	1,262.08	13,200	+1,200	1,036.60	320,500	-64,700
Dec. 31...	1,348.76	40,000	-5,000	1,261.75	13,000	-200	1,031.91	281,600	-38,900
CAL YR 2001	-	-	-8,300	-	-	+300	-	-	33,400
Jan. 31...	1,354.67	46,800	+6,800	1,261.42	12,900	-100	1,035.19	308,400	+26,800
Feb. 28...	1,364.12	59,500	+12,700	1,261.25	12,800	-100	1,038.54	337,600	+29,200
Mar. 31...	1,371.59	71,400	+11,900	1,258.69	11,700	-1,100	1,056.29	523,200	+185,600
Apr. 30...	1,375.33	77,900	+6,500	1,260.91	12,600	+900	1,061.21	584,000	+60,800
May 31...	1,381.50	90,000	+12,100	1,261.77	13,000	+400	1,065.53	640,800	+56,800
June 30...	1,381.37	89,700	-300	1,260.94	12,700	-300	1,063.15	609,100	-31,700
July 31...	1,381.52	90,000	+300	1,261.42	12,900	+200	1,060.18	571,000	-38,100
Aug. 31...	1,381.95	90,900	+900	1,262.05	13,100	+200	1,051.54	468,400	-102,600
Sept. 30...	1,376.01	79,200	-11,700	1,261.87	13,100	0	1,047.46	424,300	-44,100
WTR YR 2002	-	-	-4,900	-	-	+400	-	-	-80,700

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

- 03499500 FORT LOUDOUN LAKE.--Lat 35°47'30", long 84°14'35", Loudon County, Hydrologic Unit 06010201, at Fort Loudoun Dam on Tennessee River, 1 mi northeast of Lenoir City, and at mile 602.3. DRAINAGE AREA, 9,550 mi². PERIOD OF RECORD, July 1943 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 14 radial gates, each 32 ft high by 40 ft wide. Closure of dam was made Aug. 2, 1943; water in reservoir first reached ordinary minimum pool elevation Sept. 4, 1943. Revised capacity table put into use Jan. 19, 1980. Total level pool capacity at elevation 815.00 ft, top of gates, is 424,000 cfs-days, of which 120,000 cfs-days is controlled flood storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 815.14 ft, May 8, 1984; minimum after first filling, 805.54 ft, Jan. 18, 1954.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 186,800 cfs-days, Mar. 18; maximum elevation, 813.55 ft, May 6; minimum contents, 149,200 cfs-days, Mar. 14, minimum elevation, 807.98 ft, Mar. 14. Contents based on backwater profile.
- 03519800 TELLICO LAKE.--Lat 35°46'53", long 84°15'10", Loudon County, Hydrologic Unit 06010201, at Tellico Dam on Little Tennessee River, 1.1 mi south of Lenoir City, and at mile 0.4. DRAINAGE AREA, 2,627 mi². PERIOD OF RECORD, December 1979 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir formed by concrete dam with earth embankment. Spillway equipped with 3 radial gates, each 42 ft high by 40 ft wide. Closure of dam was made Nov. 29, 1979; water in reservoir first reached ordinary minimum pool elevation Dec. 24, 1979. Total capacity at elevation 815.00 ft, top of gates, is 225,500 cfs-days, of which 63,800 cfs-days is controlled storage above elevation 807.00 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and indirectly, power. Tellico-Fort Loudoun canal was opened Jan. 19, 1980. Canal is 1,000 ft long, and interconnects Tellico and Fort Loudoun Lakes at the dam. Spillway gates of Tellico Dam were closed Feb. 7, 1980, diverting all flow from Little Tennessee River.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 228,700 cfs-days, May 8, 1984, elevation, 815.37 ft; minimum after first filling, 155,300 cfs-days, Feb. 17, 1997, elevation, 807.30 ft; minimum elevation, 806.96 ft, Jan. 14, 1980.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 203,000 cfs-days, May 6, elevation, 813.68 ft; minimum, 161,300 cfs-days, Mar. 14, elevation, 808.15 ft.
- 03532500 NORRIS LAKE.--Lat 36°13'29", long 84°05'29", Anderson County, Hydrologic Unit 06010205, at Norris Dam on Clinch River, 2.5 mi northwest of Norris, and at mile 79.8. DRAINAGE AREA, 2,912 mi². PERIOD OF RECORD, June 1935 to current year. GAGE, water-stage recorder. Datum of stage is 0.11 ft above sea level. Gage readings have been reduced to sea level.
- REMARKS.--Reservoir is formed by concrete gravity dam with three drum gates, each 100 ft wide by 14 ft high. Some storage began in June 1935; dam was completely closed and placed in operation Mar. 4, 1936; water in reservoir first reached minimum pool elevation Mar. 24, 1936. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 1,034.11 ft, top of gates, is 1,286,600 cfs-days, of which 969,000 cfs-days is controlled storage above elevation 960.11 ft normal minimum pool. Reservoir is used for navigation, flood control, and power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,236,700 cfs-days, Feb. 11, 1937, elevation, 1,031.21 ft; minimum after first filling, 75,500 cfs-days, Jan. 24, 1956, elevation, 909.46 ft.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,017,000 cfs-days, May 28, elevation, 1019.32 ft; minimum, 542,100 cfs-days, Jan. 17, elevation, 984.82 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
	*03499500	FORT LOUDOUN LAKE		03519800	TELLICO LAKE		03532500	NORRIS LAKE	
Sept. 30...	812.85	181,900	-	813.01	197,700	-	1,007.01	823,300	-
Oct. 31...	812.55	179,700	-2,200	812.73	195,500	-2,200	997.92	698,100	-125,200
Nov. 30...	809.07	155,400	-24,300	809.25	169,200	-26,300	993.12	637,700	-60,400
Dec. 31...	808.93	154,500	-900	809.10	168,100	-1,100	988.32	581,100	-56,600
CAL YR 2001	-	-	-300	-	-	0	-	-	+56,000
Jan. 31...	809.21	156,300	+1,800	809.40	170,300	+2,200	997.93	698,200	+117,700
Feb. 28...	808.83	153,800	-2,500	808.95	167,000	-3,300	997.09	687,400	-10,800
Mar. 31...	809.65	159,300	+5,500	809.86	173,700	+6,700	1,012.83	911,200	+223,800
Apr. 30...	812.57	179,900	+20,600	812.64	194,800	+21,100	1,015.88	959,900	+48,700
May 31...	812.60	180,100	+200	812.74	195,600	+800	1,019.35	1,017,400	+57,500
June 30...	812.43	178,800	-1,300	812.56	194,200	-1,400	1,016.06	962,800	-54,600
July 31...	812.04	176,000	-2,800	812.16	191,100	-3,100	1,010.44	874,300	-88,500
Aug. 31...	812.23	177,400	+1,400	812.35	192,600	+1,500	1,003.27	770,000	-104,300
Sept. 30...	811.14	169,600	-7,800	811.30	184,500	-8,100	997.06	687,000	-83,000
WTR YR 2002	-	-	-12,300	-	-	-13,200	-	-	-135,700

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

- 03535900 MELTON HILL LAKE.--Lat 35°53'04", long 84°18'01", Loudon-Roane County line, Hydrologic Unit 06010207, 9 mi southwest of Oak Ridge, 19 mi west of Knoxville, 57 mi downstream from Norris Dam on Clinch River, and at mile 23.1. DRAINAGE AREA, 3,343 mi². PERIOD OF RECORD, August 1962 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir is formed by concrete gravity dam. Spillway is equipped with three radial gates, each 42 ft high by 40 ft wide. Dam completed and storage began May 1, 1963; water in reservoir first reached minimum pool elevation May 23, 1963. Revised capacity table put into use Jan. 1, 1971. Total capacity at elevation 796 ft, top of gates, is 63,500 cfs-days, of which 16,100 cfs-days is controlled storage above elevation 790.0 ft, normal minimum pool. Reservoir is used for navigation, power, and recreation.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,900 cfs-days, Mar. 16, 1973, elevation, 796.45 ft; minimum after first filling, 35,100 cfs-days, Feb. 9, 1966, elevation, 784.10 ft.
- EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,200 cfs-days, Mar. 18, elevation, 795.90 ft; minimum, 47,400 cfs-days, Apr. 7, elevation, 789.98 ft.
- 03543000 WATTS BAR LAKE.--Lat 35°37'13", long 84°47'00", Rhea County, Hydrologic Unit 06010201, at Watts Bar Dam on Tennessee River, 6.5 mi southeast of Spring City, 72.4 mi downstream from Fort Loudoun Dam, and at mile 529.9. DRAINAGE AREA, 17,310 mi², approximately. PERIOD OF RECORD, October 1941 to current year. GAGE, water-stage recorder. Datum of gage is sea level.
- REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with 20 radial gates, each 32 ft high by 40 ft wide, also one 2-section leaf trashway gate 16.3 ft high by 24 ft wide. Storage began with partial closure Dec. 12, 1941, and final closure Jan. 1, 1942; water in reservoir first reached minimum navigation pool elevation Feb. 17, 1942. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 745.0 ft, top of gates, is 592,400 cfs-days, of which 191,000 cfs-days is controlled flood storage above elevation 735.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 745.40 ft, Mar. 17, 1973; minimum after first filling, 733.44 ft, Mar. 20, 1945.
- EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 576,900 cfs-days, Mar. 18; maximum elevation, 744.36 ft, Mar. 19; minimum midnight contents, 404,900 cfs-days, Mar. 10; minimum elevation, 734.80 ft, Mar. 11. Contents based on backwater profile.
- 03564000 LAKE OCOEE.--Lat 35°05'40", long 84°38'53", Polk County, Hydrologic Unit 06020003, at Lake Ocoee Dam on Ocoee River at Parksville, 13.8 mi east of Cleveland, and at mile 11.9. DRAINAGE AREA, 595 mi². PERIOD OF RECORD, June 1914 to current year. Prior to October 1953, published as "Parksville (Ocoee No. 1) Reservoir," and October 1953 to September 1968, as "Parksville Lake." GAGE, nonrecording gage. Datum of gage is 6.89 ft above sea level. Gage readings have been reduced to sea level.
- REMARKS.--Reservoir is formed by concrete dam with 347 ft of spillway. Spillway is equipped with four floodgates, each 6 ft high by 20 ft wide and 265 ft of flashboards about 5.7 ft high. Crest of spillway under gates is at elevation 830.82 ft; remainder of spillway is 1.0 ft higher. Dam completed and storage began in 1911. Capacity of reservoir has been considerably reduced by silting. Revised capacity table put into use Jan. 1, 1979. Total capacity at elevation 837.55 ft, about top of flashboards, is 42,300 cfs-days, of which 15,600 cfs-days is controlled storage above elevation 817.9 ft, normal minimum pool. Reservoir is used for power.
- COOPERATION.--Records furnished by Tennessee Valley Authority.
- EXTREMES FOR PERIOD OF RECORD.--Maximum midnight contents observed, 53,300 cfs-days, July 9, 1916; maximum midnight elevation observed, 840.2 ft, Feb. 10, 1946; minimum contents observed, 27,300 cfs-days, Jan. 27, 1956, elevation, 817.7 ft; minimum midnight elevation observed, 814.8 ft, Dec. 14, 1934.
- EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 41,000 cfs-days, Sept. 28, elevation, 836.59 ft; minimum 32,400 cfs-days, Dec. 31, elevation, 826.89 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03535900 MELTON HILL LAKE				*03543000 WATTS BAR LAKE			03564000 LAKE OCOEE		
Sept. 30...	793.99	57,600	-	740.04	490,600	-	835.49	39,900	-
Oct. 31...	793.68	56,700	-900	739.52	480,700	-9,900	834.09	38,500	-1,400
Nov. 30...	793.28	55,600	-1,100	737.94	451,600	-29,100	831.89	36,500	-2,000
Dec. 31...	792.79	54,300	-1,300	735.73	413,400	-38,200	827.39	32,800	-3,700
CAL YR 2001	-	-	-2,200	-	-	-1,800	-	-	0
Jan. 31...	791.21	50,300	-4,000	735.97	417,400	+4,000	827.99	33,300	+500
Feb. 28...	793.36	55,900	+5,600	736.12	419,900	+2,500	827.79	33,100	-200
Mar. 31...	792.65	54,000	-1,900	739.52	480,700	+60,800	831.99	36,600	+3,500
Apr. 30...	793.33	55,800	+1,800	740.40	497,500	+16,800	824.59	39,000	+2,400
May 31...	794.48	59,000	+3,200	740.71	503,500	+6,000	834.99	39,400	+400
June 30...	794.82	60,000	+1,000	740.06	490,900	-12,600	835.39	39,800	+400
July 31...	793.72	56,800	-3,200	740.13	492,300	+1,400	834.59	39,000	-800
Aug. 31...	793.84	57,200	+400	740.09	491,500	-800	834.99	39,400	+400
Sept. 30...	793.96	57,500	+300	739.90	487,900	-3,600	834.99	39,400	0
WTR YR 2002	-	-	-100	-	-	-2,700	-	-	-500

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03566500 CHICKAMAUGA LAKE.--Lat 35°06'07", long 85°13'42", Hamilton County, Hydrologic Unit 06020001, at Chickamauga Dam on Tennessee River, 5.8 mi northeast of Chattanooga, 58.9 mi downstream from Watts Bar Dam, and at mile 471.0. DRAINAGE AREA, 20,790 mi², approximately. PERIOD OF RECORD, October 1939 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with eighteen 2-section lift gates, each 40.44 ft high by 40 ft wide. Storage began Feb. 6, 1940; water in reservoir first reached minimum navigation pool elevation Mar. 10, 1940. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 685.44 ft, top of gates, is 372,600 cfs-days, of which 175,000 cfs-days is controlled flood storage above elevation 675.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 686.19 ft, Mar. 29, 1994; minimum after first filling, 673.27 ft, Jan. 21, 1942.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 336,400 cfs-days, May 4; maximum elevation, 683.81 ft, May 9; minimum midnight contents, 206,500 cfs-days, Mar. 11; minimum elevation, 675.05 ft, Jan. 7. Contents based on backwater profile.

03570520 NICKAJACK LAKE.--Lat 35°00'07", long 85°37'14", Marion County, Hydrologic Unit 06020001, at Nickajack Dam on Tennessee River, 2 mi upstream from Sequatchie River, 5 mi south of Jasper, 46.3 mi downstream from Chickamauga Dam, and at mile 424.7. DRAINAGE AREA, 21,870 mi², approximately. PERIOD OF RECORD, December 1967 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with earth embankments on each side. The spillway, with crest at elevation 595.0 ft, is equipped with 10 radial gates, each 40 ft high by 40 ft wide. A trash gate, 5.5 ft high by 15 ft wide, is located between the spillway and powerhouse. Dam was completed and storage began on Dec. 14, 1967. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 635.0 ft, top of gates, is 127,200 cfs-days, of which 16,200 cfs-days is controlled storage above elevation 632.0 ft, ordinary minimum. Reservoir is used for navigation and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 634.99 ft, Apr. 19, 1969; minimum after first filling, 630.82 ft, Feb. 20, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 152,700 cfs-days, Jan. 25; maximum elevation, 634.54 ft, July 31; minimum midnight contents, 116,100 cfs-days, Nov. 12; minimum elevation, 632.00 ft, Dec. 13. Contents based on backwater profile.

03579000 WOODS RESERVOIR.--Lat 35°17'54", long 86°05'48", Franklin County, Hydrologic Unit 06030003, at Elk River Dam on Elk River, 1.2 mi upstream from Spring Creek, 2.5 mi northeast of Estill Springs, 6.8 mi upstream from bridge on U.S. Highway 41-A, and at mile 170.0. DRAINAGE AREA, 263 mi². PERIOD OF RECORD, May 1952 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity and earthfill-type dam with riprapped embankments. Spillway equipped with three radial gates, each 25 ft high by 50 ft wide, and two sluice gates, each 6 ft high by 4 ft wide. Closure of dam was made May 1, 1952; water in reservoir first reached minimum pool elevation Feb. 6, 1953. Total capacity at elevation 962.0 ft, surcharge pool, is 44,400 cfs-days, of which 9,900 cfs-days is controlled storage above elevation 957.0 ft, normal minimum pool. Reservoir is used for cooling water, flood control, and recreational purposes.

COOPERATION.--Twice-daily gage readings (0600 and 2400 hours) furnished by U.S. Air Force.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 42,300 cfs-days, April 21 and 22, 1956, elevation, 960.98 ft; minimum after first filling, 26,300 cfs-days, Nov. 8-11, 1953, elevation, 951.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 145,900 cfs-days, May 7, elevation, 959.92 ft; minimum midnight contents, 35,900 cfs-days, Jan. 27; elevation, 957.73 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	
	*03566500 CHICKAMAUGA LAKE				*03570520 NICKAJACK LAKE			03579000 WOODS RESERVOIR		
Sept. 30...	681.15	290,000	-	633.77	120,200	-	959.53	39,300	-	
Oct. 31...	680.00	270,700	-19,300	633.59	119,200	-1,000	958.30	37,000	-2,300	
Nov. 30...	676.49	217,600	-53,100	633.86	121,000	+1,800	958.00	36,400	-600	
Dec. 31...	676.01	211,000	-6,600	633.48	119,100	-1,900	958.11	36,600	+200	
CAL YR 2001	-	-	-4,400	-	-	-200	-	-	+200	
Jan. 31...	678.93	253,700	+42,700	632.81	119,600	+500	958.09	36,600	0	
Feb. 28...	677.06	255,700	-28,000	633.98	121,300	+1,700	957.97	36,300	-300	
Mar. 31...	680.90	285,700	+60,000	633.57	123,500	+2,200	959.50	39,300	+3,000	
Apr. 30...	682.89	321,000	+35,300	634.00	121,400	-2,100	959.48	39,200	-100	
May 31...	682.70	317,500	-3,500	633.65	119,500	-1,900	959.52	39,300	+100	
June 30...	681.72	299,900	-17,600	633.46	118,500	-1,000	959.51	39,300	0	
July 31...	681.82	301,600	+1,700	634.33	123,900	+5,400	959.53	39,300	0	
Aug. 31...	681.41	294,400	-7,200	633.97	121,200	-2,700	959.55	39,400	+100	
Sept. 30...	680.84	284,700	-9,700	633.69	120,900	-300	959.45	39,200	-100	
WTR YR 2002	-	-	-5,300	-	-	+700	-	-	+100	

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03580740 TIMS FORD LAKE.--Lat 35°11'51", long 86°16'41", Franklin County, Hydrologic Unit 06030003, in intake tower near left bank at Tims Ford Dam on Elk River, 0.4 mi upstream from bridge on State Highway 50, 9.5 mi west of Winchester, and at mile 133.4. DRAINAGE AREA, 529 mi². PERIOD OF RECORD, December 1970 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with compacted rockfill impervious earth core embankments. Spillway equipped with three radial gates, each 42 ft high by 40 ft wide. Storage began Dec. 1, 1970; water in reservoir first reached minimum pool elevation Feb. 23, 1971, and first filling was completed June 3, 1971. Total capacity at elevation 895 ft, top of gates, is 306,500 cfs-days, of which 142,400 cfs-days is controlled storage above elevation 865 ft, normal minimum pool. Reservoir is used for flood control, power, and recreation.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 298,600 cfs-days, Dec. 23, 1990, elevation, 893.62 ft; minimum after first filling 130,600 cfs-days, Dec. 1, 1997, elevation, 855.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 280,600 cfs-days, May 6, elevation, 890.45 ft; minimum, 191,600 cfs-days, Jan. 5, elevation, 871.99 ft.

03593000 PICKWICK LAKE.--Lat 35°04'16", long 88°15'04", Hardin County, Hydrologic Unit 06040001, at Pickwick Landing Dam on Tennessee River, 1.5 mi north of town of Pickwick Dam, 6.1 mi upstream from Lick Creek, 52.7 mi downstream from Wilson Dam, and at mile 206.7. DRAINAGE AREA, 38,820 mi², approximately. PERIOD OF RECORD, October 1937 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with riprapped earth embankments. Spillway equipped with twenty-two 2-section lift gates, each 40 ft high by 40 ft wide, one of which is used as a trash gate. Dam completed and storage began Feb. 8, 1938; water in reservoir first reached minimum pool elevation Feb. 18, 1938. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 418.0 ft, top of gates, is 557,100 cfs-days, of which 210,200 cfs-days is controlled flood storage above elevation 408.0 ft, minimum navigation pool. Reservoir is used for navigation, flood control, and power.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 419.49 ft, Mar. 30, 1944; minimum after first filling, 407.12 ft, Dec. 18, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 644,500 cfs-days, Jan. 26; maximum elevation, 416.83 ft; May 6, minimum midnight contents, 438,500 cfs-days, Nov. 15, minimum elevation, 407.94 ft, Nov. 15. Contents based on backwater profile.

03596460 NORMANDY LAKE.--Lat 35°27'55", long 86°14'55", Coffee County, Hydrologic Unit 06040002, at Normandy Dam on Duck River, 1.5 mi northeast of Normandy, 2.6 mi downstream from Riley Creek, 8 mi north of Tullahoma, and at mile 248.6. DRAINAGE AREA, 195 mi². PERIOD OF RECORD, January 1976 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete gravity dam with riprapped and rolled earthfill embankment on left side. Spillway is equipped with two radial gates, each 40 ft high by 36 ft wide. Storage began Jan. 5, 1976; water in reservoir first reached minimum pool elevation Mar. 22, 1976. Revised capacity table put into use Jan. 1, 1977. Total capacity at elevation 880 ft, top of gates, is 64,000 cfs-days, of which 30,400 cfs-days is controlled storage above elevation 859 ft, normal minimum pool. Reservoir is used for flood control, water supply, water-quality control, recreation, and shoreline development.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 63,800 cfs-days, Feb. 20, 1991, elevation, 880.12 ft; minimum after first filling, 26,800 cfs-days, Nov. 27, 1981, elevation, 853.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 61,900 cfs-days, Jan. 25, elevation, 879.06 ft; minimum 39,500 cfs-days, Jan. 5, elevation, 864.12 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
03580740 TIMS FORD LAKE				*03593000 PICKWICK LAKE			03596460 NORMANDY LAKE		
Sept. 30...	885.28	252,900	-	411.80	508,900	-	872.59	51,600	-
Oct. 31...	881.76	235,300	-17,600	412.96	537,500	+28,600	871.35	49,700	-1,900
Nov. 30...	877.61	215,900	-19,400	413.49	550,500	+13,000	865.19	41,000	-8,700
Dec. 31...	873.71	198,800	-17,100	408.97	446,800	-103,700	864.29	39,800	-1,200
CAL YR 2001	-	-	+3,700	-	-	-800	-	-	-700
Jan. 31...	879.76	225,800	+27,000	410.32	494,300	+47,500	865.93	42,000	2,200
Feb. 28...	877.92	217,300	-8,500	409.77	460,200	-34,100	865.37	41,200	-800
Mar. 31...	887.15	262,700	+45,400	415.11	601,100	+140,900	876.63	57,900	+16,700
Apr. 30...	886.41	258,800	-3,900	413.40	547,400	-53,700	874.56	54,600	-3,300
May 31...	888.40	269,400	+10,600	413.01	540,000	-7,400	875.41	56,000	-1,400
June 30...	888.04	267,400	-2,000	413.53	552,400	+12,400	874.46	54,500	-1,500
July 31...	886.36	258,500	-8,900	413.89	559,000	+6,600	872.71	51,800	-2,700
Aug. 31...	885.13	252,100	-6,400	411.98	515,200	-43,800	870.75	48,800	-3,000
Sept. 30...	883.88	245,800	-6,300	410.08	484,000	-31,200	869.72	47,300	-1,500
WTR YR 2002	-	-	-7,100	-	-	-24,900	-	-	-4,300

* Contents based on backwater profile.

RESERVOIRS IN TENNESSEE RIVER BASIN--Continued

03609000 KENTUCKY LAKE.--Lat 37°00'49", long 88°16'06", Marshall County, KY, Hydrologic Unit 06040006, at Kentucky Dam on Tennessee River at Gilbertsville, KY, and at mile 22.4. DRAINAGE AREA, 40,200 mi², approximately. PERIOD OF RECORD, July 1944 to current year. GAGE, water-stage recorder. Datum of gage is sea level.

REMARKS.--Reservoir is formed by concrete dam with 24 lift gates 50 ft high by 40 ft wide. Storage began Aug. 16, 1944, and final closure was Aug. 30, 1944. Water in reservoir reached minimum pool elevation Apr. 7, 1945. Revised capacity table put into use Jan. 1, 1971. Total level pool capacity at elevation 375.0 ft, top of gates, is 3,090,000 cfs-days, of which 2,020,700 cfs-days is controlled storage above 354.0 ft, ordinary minimum pool. Reservoir is used for navigation, flood control, and power. Barkley-Kentucky Canal opened July 13, 1966, for navigation and power use. Canal is 1.75 miles long and interconnects Lake Barkley and Kentucky Lake at a point 2.2 mi upstream from Barkley Dam. For daily discharges through the canal, see Kentucky reports.

COOPERATION.--Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 369.87 ft, May 24, 1983; minimum after first filling, 348.02 ft, Mar. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum midnight contents, 1,956,200 cfs-days May 21; maximum elevation, 365.32 ft, May 23; minimum midnight contents, 1,089,500 cfs-days, Feb. 22, minimum elevation, 353.52 ft, Feb. 4.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Elevation (feet)	Content (cfs-days)	Change contents (cfs-days)
*03609000 KENTUCKY LAKE			
Sept. 30...	355.47	1,172,700	--
Oct. 31...	354.68	1,119,200	-53,000
Nov. 30...	359.92	1,681,200	+561,500
Dec. 31...	354.55	1,137,300	-543,900
CAL YR 2001	-	-	-31,100
Jan. 31...	354.47	1,618,900	+481,600
Feb. 28...	354.80	1,119,900	-499,000
Mar. 31...	355.84	1,288,000	+168,100
Apr. 30...	359.21	1,421,100	+133,100
May 31...	361.42	1,628,200	+207,100
June 30...	359.11	1,422,200	-206,000
July 31...	357.75	1,321,300	-100,900
Aug. 31...	356.23	1,220,600	-100,700
Sept. 30...	357.31	1,305,100	-84,500
WTR YR 2002	-	-	+132,400

* Contents based on backwater profile.

OTHER RESERVOIRS.--The following small reservoirs in the Tennessee River basin are described below, but records of contents are not published herein.

03466400 DAVY CROCKETT LAKE on Nolichucky River at Nolichucky Dam, with a total capacity of 1,300 cfs-days, none of which is controlled storage.

03517900 CALDERWOOD LAKE on Little Tennessee River at Calderwood, with a total capacity of 20,800 cfs-days of which 840 cfs-days is controlled storage.

03518200 CHILHOWEE LAKE on Little Tennessee River at Chilhowee Dam, with a total capacity of 24,800 cfs-days of which 3,400 cfs-days is controlled storage.

03562500 OCOEE NO. 3 LAKE on Ocoee River at Ocoee No. 3 Dam, 5.0 miles west of Ducktown, with a total capacity of 1,660 cfs-days, of which 1,550 cfs-days is controlled storage. Records of contents previous to 1971 water year published as Ocoee No. 3 Lake near Ducktown, TN.

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07024305 BEAVER CREEK AT HIGHWAY 22 BYPASS NEAR HUNTINGDON, TN

LOCATION.--Lat 36°00'47", long 88°26'42", Carroll County, Hydrologic Unit 08010203, on the upstream side of the main channel bridge on Highway 22 Bypass, 0.8 mi northwest of Huntingdon, 3 mi upstream of Crooked Creek, and at mile 4.5.

DRAINAGE AREA.--58.6 mi².

PERIOD OF RECORD.--June 1994 to April 1996, December 2000 to current year. Prior to June 1994, occasional low-flow measurements, water years 1946, 1948, 1952-54, 1956-61 and annual maximum, water years 1954-62, 1989-91. October 1962 to February 1988, July 1988 to September 1989. October 1991 to April 14, 1994, continuous stage at bridge 1.0 mi upstream of present location.

REVISED RECORDS.--WSP 1920: 1956(M).

GAGE.--Data collection platform. Datum of gage is 350 ft above NGVD of 1929, from topographic map. Prior to June 1994 water-stage recorder at site 1.0 mi upstream at datum 14.2 higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 29	1915	*8,130	*21.82	Sep 27	1030	7,810	21.66

Minimum daily discharge, 20 ft³/s, July 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	34	1010	64	161	61	805	50	43	24	36	23
2	27	35	342	57	98	60	349	47	39	24	42	22
3	25	107	115	58	81	63	113	46	37	25	36	23
4	25	68	85	55	75	54	81	55	35	24	23	22
5	29	46	77	56	68	53	71	48	34	22	25	21
6	55	43	79	92	72	50	67	42	41	21	23	21
7	35	39	98	88	113	50	62	39	38	20	22	22
8	31	37	385	70	123	50	66	37	34	21	21	24
9	30	37	510	67	87	65	89	41	33	22	21	25
10	30	38	218	67	81	61	69	41	32	79	22	25
11	93	38	99	101	72	55	62	40	33	147	152	26
12	123	38	314	76	67	131	59	37	35	49	64	25
13	266	37	1400	68	63	107	59	224	40	53	34	27
14	e518	37	987	63	59	77	58	131	39	64	56	49
15	e444	37	442	58	58	69	54	55	30	36	59	50
16	154	39	327	55	69	147	50	47	30	29	80	44
17	59	38	485	55	67	357	56	262	29	26	77	38
18	40	36	490	111	55	1090	52	479	29	26	43	35
19	35	39	232	305	57	827	47	288	28	28	40	33
20	33	52	112	264	173	715	45	76	27	26	36	123
21	32	43	e90	117	104	798	44	55	27	e22	33	126
22	32	40	e82	94	72	335	42	51	26	e36	31	52
23	33	39	e800	222	63	117	39	45	26	32	38	37
24	51	198	e400	634	59	89	51	42	27	32	30	30
25	94	240	e150	853	57	80	96	40	32	28	43	29
26	53	98	e93	339	107	302	56	48	30	27	33	447
27	40	560	83	114	79	273	45	46	27	26	28	5940
28	36	989	80	93	67	125	102	42	28	25	26	1820
29	38	5430	e74	87	---	100	59	59	26	24	25	423
30	35	5120	e70	88	---	160	44	56	25	29	24	70
31	34	---	63	88	---	551	---	49	---	36	23	---
TOTAL	2558	13632	9792	4559	2307	7072	2892	2618	960	1083	1246	9652
MEAN	82.52	454.4	315.9	147.1	82.39	228.1	96.40	84.45	32.00	34.94	40.19	321.7
MAX	518	5430	1400	853	173	1090	805	479	43	147	152	5940
MIN	25	34	63	55	55	50	39	37	25	20	21	21
CFSM	1.41	7.75	5.39	2.51	1.41	3.89	1.65	1.44	0.55	0.60	0.69	5.49
IN.	1.62	8.65	6.22	2.89	1.46	4.49	1.84	1.66	0.61	0.69	0.79	6.13

e Estimated

07024305 BEAVER CREEK AT HIGHWAY 22 BYPASS NEAR HUNTINGDON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	56.27	180.4	138.5	156.4	184.9	195.6	97.53	80.98	63.47	68.77	62.27	107.0
MAX	82.5	454	316	264	376	381	254	87.9	96.8	86.9	120	322
(WY)	2002	2002	2002	1994	1994	1994	1994	1995	1994	1994	1995	2002
MIN	43.1	77.8	68.1	67.6	82.4	79.2	61.4	70.5	32.0	34.9	40.2	30.5
(WY)	1994	1994	2001	2001	2002	2001	1995	2001	2002	2002	2002	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

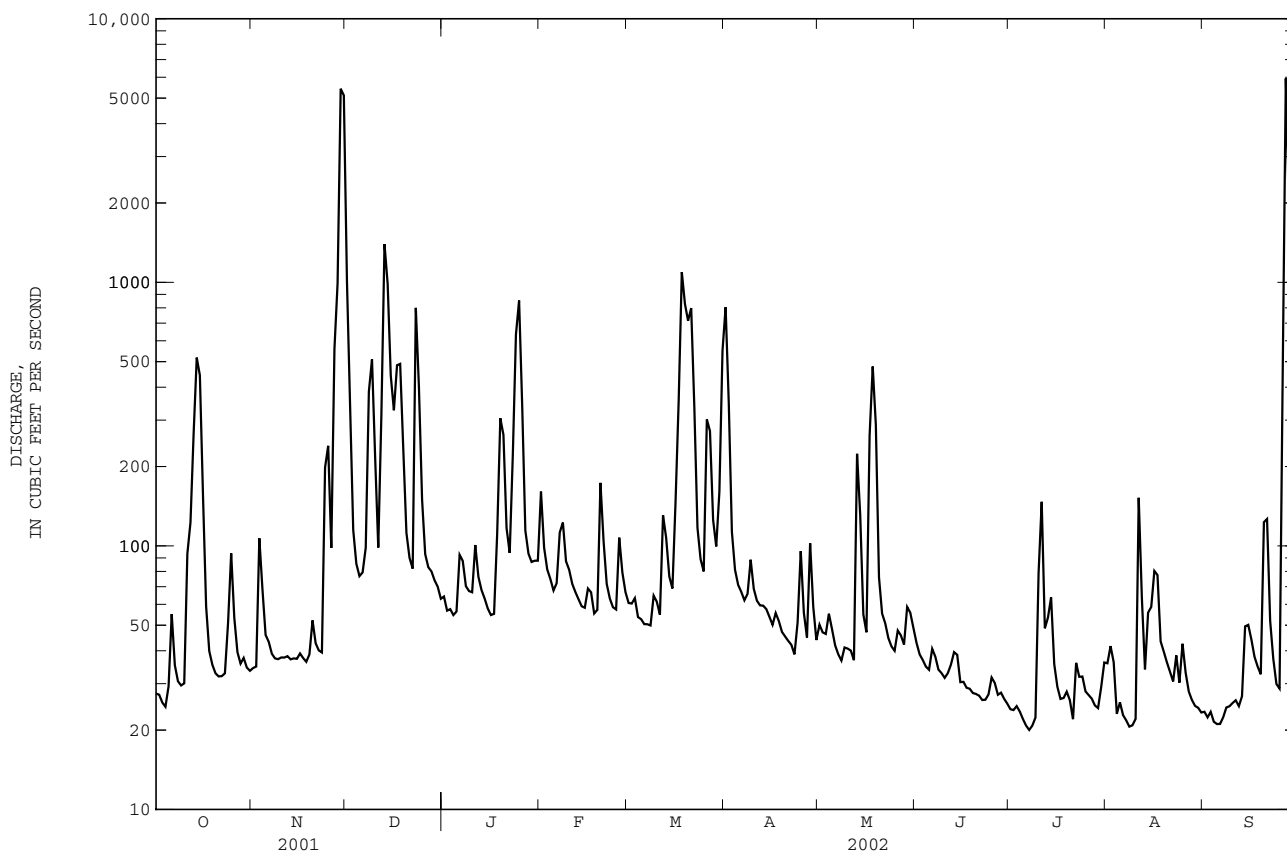
FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	48681	58371	
ANNUAL MEAN	133.4	159.9	120.2
HIGHEST ANNUAL MEAN			160
LOWEST ANNUAL MEAN			81.6
HIGHEST DAILY MEAN	5430	Nov 29	5940
LOWEST DAILY MEAN	24	Sep 26	20
ANNUAL SEVEN-DAY MINIMUM	25	Sep 23	22
MAXIMUM PEAK FLOW			8130
MAXIMUM PEAK STAGE			21.82
INSTANTANEOUS LOW FLOW			
ANNUAL RUNOFF (CFSM)	2.28	2.73	2.05
ANNUAL RUNOFF (INCHES)	30.90	37.05	27.86
10 PERCENT EXCEEDS	222	309	239
50 PERCENT EXCEEDS	48	53	56
90 PERCENT EXCEEDS	30	26	33

a From rating curve extended above 3,600 ft³/s on basis of contracted opening measurement of peak flow; at site 1 mile upstream of present location.

b At site 1 mi upstream of present location and at datum 14.2 ft higher than present datum.



07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN

LOCATION.--Lat 36°07'05", long 88°48'39", Weakly County, Hydrologic Unit 08010203, on left bank downstream from bridge on U.S. Highway 45E, 1.1 mi downstream from Mosley Branch, 2.5 mi south of Greenfield, and 9.7 mi upstream from confluence with Middle Fork.

DRAINAGE AREA.--383 mi².

PERIOD OF RECORD.--July 1929 to February 1988, July 1988 to April 1989, October 2001 to September 2002. Water years 1990-93, 1997-2001, annual maximum.

REVISED RECORDS.--WSP 1311: 1936(M). WSP 1920: Drainage area.

GAGE.--Data collection platform. Datum of gage is 300.36 ft above NGVD of 1929.

REMARKS.--Records poor. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s, Jan. 22, 1937, gage height, 17.82 ft, from floodmarks, from rating curve extended above 14,000 ft³/s; minimum, 61 ft³/s, Aug. 21, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	unknown	*13,100	*17.43	Mar 31	1000	4,170	12.59
Dec 14	unknown	6,020	14.76	Sep 20	1445	3,170	10.72
Jan 24	unknown	5,610	14.39	Sep 29	2100	7,800	15.94
Mar 20	0330	4,620	13.23				

Minimum discharge not determined, minimum observed 120 ft³/s, Oct. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e130	e152	e11000	e350	1440	362	3020	273	541	147	155	148
2	e129	e250	e8400	e320	820	355	2700	259	444	145	157	146
3	e122	e350	e7000	e300	730	349	2180	247	373	149	158	144
4	e120	e345	e4000	e300	622	313	1190	254	317	146	160	e140
5	e160	e260	e2700	e350	528	303	790	248	279	142	155	e139
6	e160	e250	e1500	e410	482	297	629	243	287	140	148	e140
7	e140	e230	e2000	e390	482	294	529	238	241	137	145	e138
8	e130	e210	e2150	e340	473	301	471	232	220	134	141	e155
9	e125	e200	e1950	e290	483	318	461	229	210	132	139	e160
10	e130	e190	e1590	e380	488	309	442	224	214	133	138	e152
11	e300	e180	e640	e470	454	313	406	218	199	143	137	e145
12	e1300	e170	e1700	e470	428	354	385	213	193	177	144	e140
13	e1700	e165	e5000	e340	400	371	369	991	224	227	173	e140
14	e1700	e160	e5500	e320	371	384	362	633	199	192	213	e160
15	e1500	e160	e5100	e290	350	382	339	665	187	187	197	239
16	e1100	e160	e2400	e235	356	365	316	700	178	185	185	244
17	e580	e160	e4400	e200	352	1220	301	1460	172	177	194	173
18	e490	e165	e4200	e1100	347	2950	291	1490	169	172	487	168
19	e200	e190	e4000	e1250	343	2710	283	1360	167	165	407	167
20	e165	e210	2640	e1100	620	4140	277	1280	163	161	238	1400
21	e140	152	1360	e760	471	4090	272	1040	158	159	199	543
22	e140	154	901	e680	474	3850	265	713	155	155	184	305
23	e130	157	2480	e3200	454	2890	248	504	152	160	175	271
24	e260	196	1880	e3400	429	1350	240	390	150	165	169	247
25	e330	e300	1750	3290	382	880	275	314	150	163	168	220
26	e320	e400	1320	3150	407	1970	271	452	150	169	165	1320
27	e240	e2000	876	2680	376	1330	282	335	157	172	165	4850
28	e170	e4260	e704	1330	372	1180	318	360	156	166	163	4930
29	e150	e8420	e560	852	---	952	287	755	152	160	159	6710
30	e135	e12500	e460	686	---	1010	281	1270	150	156	154	6850
31	e130	---	e400	696	---	3160	---	1030	---	155	151	---
TOTAL	12526	32696	90561	29929	13934	39052	18480	18620	6507	4971	5723	30684
MEAN	404.1	1090	2921	965.5	497.6	1260	616.0	600.6	216.9	160.4	184.6	1023
MAX	1700	12500	11000	3400	1440	4140	3020	1490	541	227	487	6850
MIN	120	152	400	200	343	294	240	213	150	132	137	138
CFSM	1.05	2.85	7.63	2.52	1.30	3.29	1.61	1.57	0.57	0.42	0.48	2.67
IN.	1.22	3.18	8.80	2.91	1.35	3.79	1.79	1.81	0.63	0.48	0.56	2.98

e Estimated

07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	207.9	467.9	811.0	1069	988.9	1035	797.5	640.1	354.3	274.3	233.0	249.4
MAX	921	2921	2921	5853	3608	2638	3185	3085	1858	1055	1763	1310
(WY)	1973	1958	2002	1937	1956	1975	1979	1983	1981	1972	1971	1950
MIN	85.0	108	135	153	147	132	156	120	99.7	90.7	91.8	83.9
(WY)	1944	1955	1966	1940	1941	1941	1967	1941	1936	1943	1987	1956

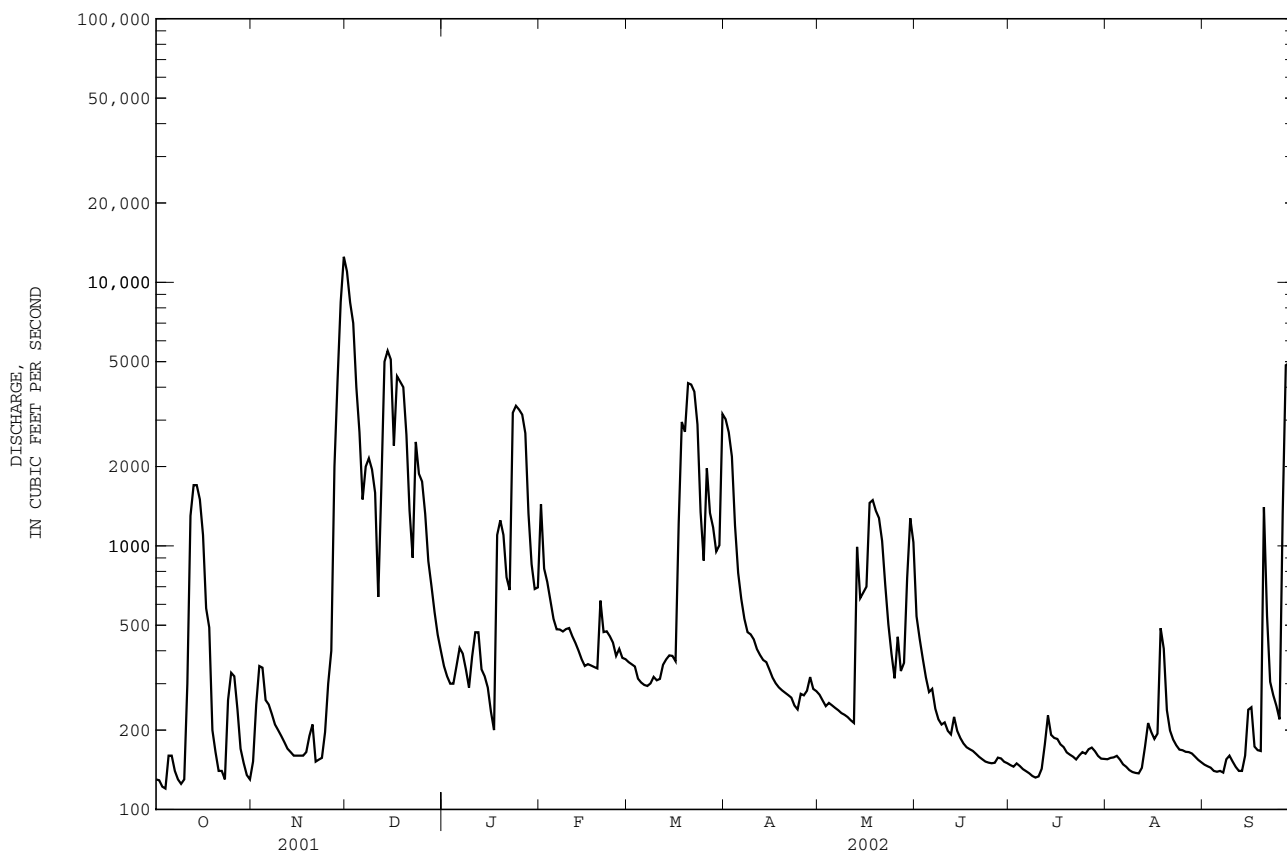
SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1929 - 2002

ANNUAL TOTAL	303683	
ANNUAL MEAN	832.0	592.5
HIGHEST ANNUAL MEAN		1432
LOWEST ANNUAL MEAN		136
HIGHEST DAILY MEAN	12500	Nov 30
LOWEST DAILY MEAN		61
ANNUAL SEVEN-DAY MINIMUM	137	Oct 3
MAXIMUM PEAK FLOW	a13100	Nov 30
MAXIMUM PEAK STAGE	a17.43	Nov 30
ANNUAL RUNOFF (CFSM)	2.17	1.55
ANNUAL RUNOFF (INCHES)	29.50	21.02
10 PERCENT EXCEEDS	2160	1440
50 PERCENT EXCEEDS	300	220
90 PERCENT EXCEEDS	146	105

a Peak stage determined from crest-stage gage.



07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN

LOCATION.--Lat 36°24'20", long 88°51'20", Weakly County, Hydrologic Unit 08010203, on right bank on U.S. Highway 45E, 4.0 miles north of Martin.

DRAINAGE AREA.--372 mi².

PERIOD OF RECORD.--October 2001 to September 2002. Annual maximum at unknown datum, 1939 to 1967. Periodic measurements of discharge and miscellaneous water-quality data, 1979 to 1987. Annual maximum at present datum, 1997 to 2001.

GAGE.--Data collection platform, operated in cooperation of the Memphis District Corps of Engineers. Datum of gage is 303.46 ft above NGVD of 1929, determined by the Memphis District Corps of Engineers.

REMARKS.--No estimated daily discharges. Records are good. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

COOPERATION.--Gage operated jointly with the Memphis District U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	1700	*14,000	*21.46	Mar 20	0500	6,690	17.98
Dec 13	0100	6,610	17.87	Mar 26	0700	6,180	17.21
Dec 18	0500	9,210	20.20	May 18	2000	9,020	20.14
Jan 24	0500	7,480	18.97	Sep 27	0200	6,480	17.67
Feb 1	0300	6,300	17.40				

Minimum daily discharge, 145 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	175	12300	277	5080	310	1950	1250	362	186	166	158
2	156	177	7350	265	1980	335	764	596	282	180	167	157
3	156	185	1490	263	762	667	507	363	245	413	165	157
4	157	180	625	257	535	370	395	309	218	216	162	154
5	160	174	437	256	436	315	351	289	210	180	161	155
6	183	171	436	308	405	304	319	262	1090	169	161	155
7	172	167	582	343	410	297	302	247	631	162	160	150
8	163	168	4710	290	402	291	301	240	348	159	154	149
9	160	167	1460	284	375	346	345	235	288	156	153	150
10	159	168	524	290	356	412	308	234	267	158	153	150
11	514	168	369	304	341	310	285	269	256	227	153	149
12	438	166	1740	279	316	432	282	235	317	183	155	147
13	393	166	5960	264	306	424	301	2600	1180	174	168	145
14	2550	166	5390	255	292	344	2240	1580	507	181	330	149
15	751	165	2660	240	291	310	2080	455	295	180	236	163
16	373	164	5420	228	301	357	603	305	249	169	181	578
17	275	163	8620	228	296	2740	411	5500	234	167	182	201
18	231	162	8830	236	283	3200	346	8640	223	182	754	198
19	217	169	6940	254	287	1850	311	8410	214	194	573	176
20	210	178	1670	274	825	6000	291	5710	211	178	250	2080
21	206	170	824	263	495	4660	277	1010	208	170	213	2930
22	203	166	703	324	353	1710	258	507	200	166	183	701
23	203	166	4030	5610	309	669	239	403	195	170	175	310
24	215	301	1620	6700	296	513	1980	336	193	251	190	238
25	285	329	726	5720	296	447	1660	309	461	188	182	214
26	234	234	522	2210	618	4920	454	1370	371	170	180	826
27	206	2800	444	792	408	3010	328	595	338	166	176	5740
28	195	5100	409	587	322	879	2120	543	259	166	169	4320
29	188	8300	377	508	---	686	924	3040	213	168	164	2280
30	184	12200	322	462	---	956	386	2320	195	163	160	558
31	179	---	295	1010	---	2850	---	720	---	172	158	---
TOTAL	9872	33165	87785	29581	17376	40914	21318	48882	10260	5764	6534	23638
MEAN	318.5	1106	2832	954.2	620.6	1320	710.6	1577	342.0	185.9	210.8	787.9
MAX	2550	12200	12300	6700	5080	6000	2240	8640	1180	413	754	5740
MIN	156	162	295	228	283	291	239	234	193	156	153	145
CFSM	0.86	2.97	7.61	2.57	1.67	3.55	1.91	4.24	0.92	0.50	0.57	2.12
IN.	0.99	3.32	8.78	2.96	1.74	4.09	2.13	4.89	1.03	0.58	0.65	2.36

07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2002, BY WATER YEAR (WY)

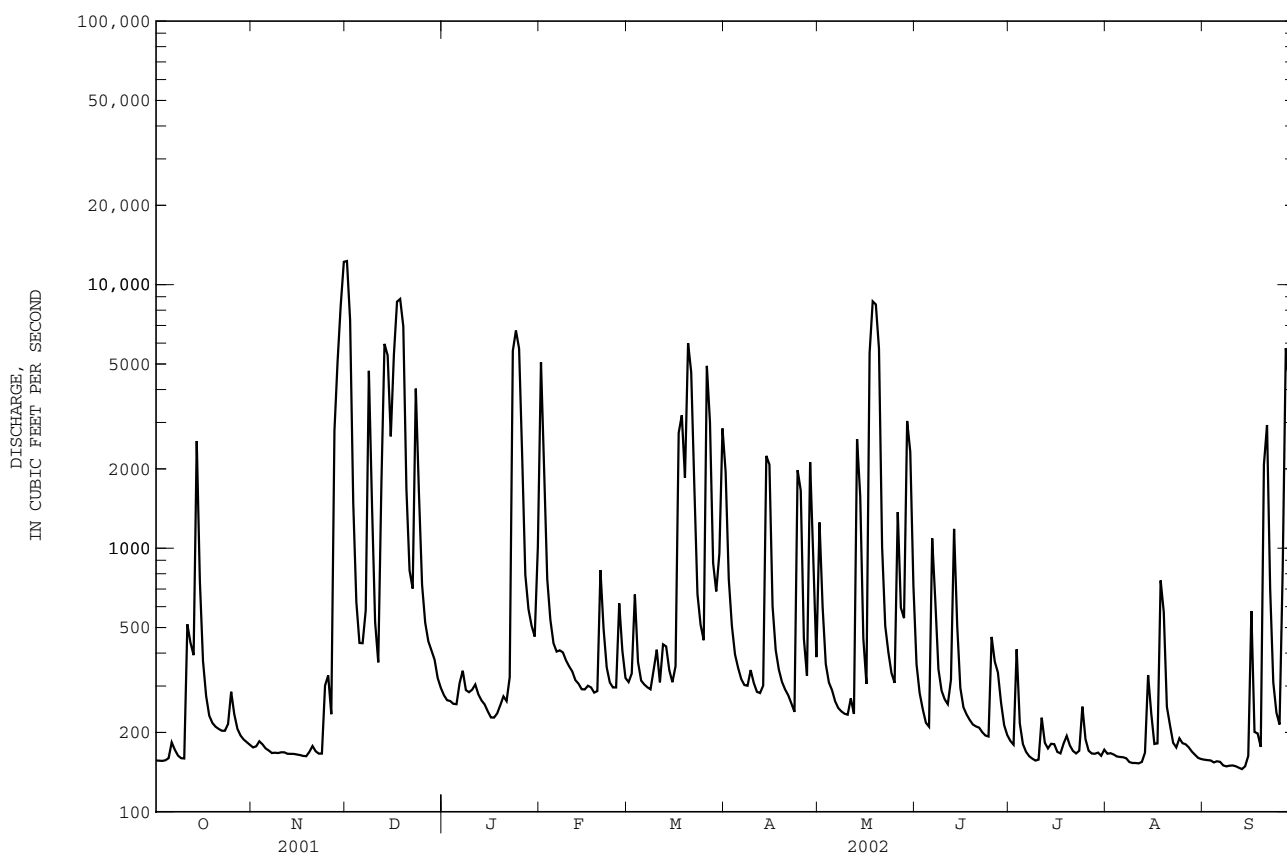
MEAN	196.5	432.4	679.1	697.9	882.3	1067	751.5	571.3	341.0	278.2	248.9	214.2
MAX	1196	3135	2832	2457	2476	4157	2276	1655	1346	928	1267	788
(WY)	1950	1958	2002	1949	1956	1975	1973	1973	1981	1975	1971	2002
MIN	70.3	85.6	119	125	115	175	165	121	82.4	69.3	83.4	73.5
(WY)	1945	1945	1957	1943	1941	1947	1941	1941	1944	1946	1944	1939

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1939 - 2002

ANNUAL TOTAL	335089		
ANNUAL MEAN	918.1		526.9
HIGHEST ANNUAL MEAN			1062
LOWEST ANNUAL MEAN			164
HIGHEST DAILY MEAN	12300	Dec 1	25700
LOWEST DAILY MEAN	145	Sep 13	40
ANNUAL SEVEN-DAY MINIMUM	148	Sep 8	43
MAXIMUM PEAK FLOW	14000	Nov 30	
MAXIMUM PEAK STAGE	21.46	Nov 30	
ANNUAL RUNOFF (CFSM)	2.47		1.42
ANNUAL RUNOFF (INCHES)	33.51		19.24
10 PERCENT EXCEEDS	2410		1050
50 PERCENT EXCEEDS	292		182
90 PERCENT EXCEEDS	162		104



07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR OBION, TN

LOCATION.--Lat 36°14'27", long 89°13'03", Obion County, Hydrologic Unit 08010202, on right downstream bank, at end of main channel bridge on U.S. Highway 51, 3.2 mi northeast of Trimble, 2.0 mi southwest of Obion and 1.6 river miles downstream of the former gage location, Obion River at Obion.

DRAINAGE AREA.--1,875 mi².

PERIOD OF RECORD.--July 1929 to September 1958, October 1966 to September 1995, October 2001 to September 2002. Gage height and discharge records at this site from 1964 to 1975 are in reports of U.S. Army Corps of Engineers. Prior to Oct. 1990 published as "at Obion."

REVISED RECORD.--WSP 1211: 1930, 1943. WSP 2120: Drainage area.

GAGE.--Data collection platform. Datum of gage is 245.17 ft above NGVD of 1929. Prior to Oct. 1990 water-stage recorder at site 1.6 mi upstream at a datum 1.31 ft higher (levels by the U.S. Army Corps of Engineers). Prior to Oct. 1, 1932, nonrecording gage at site 1.6 mi upstream at datum 6.31 ft higher; Oct. 1, 1932 to Aug. 2, 1939, nonrecording gage, and Aug. 3, 1939, to Sept. 1958, water-stage recorder at site 1.6 mi upstream at datum 16.31 ft higher.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 99,500 ft³/s, Jan. 24, 1937 gage height, 40.4 ft present datum; minimum under conditions of no backwater, 230 ft³/s, Oct. 7-9, 1943, minimum daily discharge, 15 ft³/s, backwater from Mississippi River, Feb. 4, 1937, reverse flow of 57 ft³/s, measured by current meter on that date.

REMARKS.--Records good.

COOPERATION.--Gage operated jointly with the Memphis District U.S. Army Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,800 ft³/s, Dec. 3, gage height 38.78 ft; minimum daily discharge, 397 ft³/s, Oct. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	397	634	35200	3290	10800	1460	11200	1270	3590	803	660	743
2	400	655	50100	2010	11400	1600	11600	1850	2330	774	638	690
3	399	888	55000	1610	9990	2280	11000	1220	1700	847	640	677
4	399	1150	50300	1460	7800	1730	9190	1110	1420	889	651	673
5	403	752	e20000	1380	5950	1430	7200	1110	1300	757	696	669
6	437	698	e9000	1480	4200	1390	5640	1050	2440	710	720	664
7	428	677	e15000	1680	2780	1350	4010	1020	2600	683	675	660
8	413	669	e20000	1540	2290	1320	2830	995	1640	664	667	653
9	405	661	21600	1430	2020	1380	2290	983	1400	648	660	650
10	400	649	18500	1410	1900	1640	2000	991	1320	639	657	651
11	2750	652	e12000	1430	1830	1490	1740	1020	1410	800	651	651
12	4420	639	e8200	1460	1800	1700	1620	995	1410	818	654	647
13	2190	625	14500	1320	1890	2010	1670	4970	5190	777	694	645
14	6480	618	17300	1280	1730	1640	2980	7120	3610	829	1430	647
15	6320	606	e15000	1210	1650	1490	5220	3980	1770	862	1330	662
16	2930	601	25400	1160	1630	1430	2610	2310	1330	855	868	1120
17	1820	603	34500	1130	1550	4980	1630	8060	1200	734	816	1010
18	1460	587	39600	1130	1490	8950	1420	12400	1120	705	902	784
19	1130	584	41300	1450	1430	9600	1300	16600	1070	708	3730	806
20	946	609	40000	2200	3510	11300	1220	19700	1030	704	1430	4310
21	845	622	e20000	1700	3000	13000	1190	e17000	1010	689	925	8490
22	773	626	e12000	1680	1970	14800	1140	e10000	976	670	819	5480
23	717	626	e17000	9240	1700	e13000	1080	e7000	936	730	786	2070
24	694	977	e18000	11600	1620	e9000	1670	e5000	911	719	787	1130
25	799	1240	18500	13500	1550	10800	3480	e4000	895	783	788	954
26	779	951	15000	15600	2120	11700	1770	e5600	1140	702	931	1310
27	701	6250	12400	15200	2000	12400	1240	6810	995	677	781	9450
28	672	9590	10400	e11000	1590	12000	e2800	5540	1000	662	733	10400
29	657	12500	8570	e7000	---	10200	e3500	6330	886	648	715	11500
30	649	19100	6820	e5000	---	e7200	1440	6150	835	638	703	12800
31	640	---	5230	e5000	---	e9500	---	5530	---	640	704	---
TOTAL	42453	66039	686420	127580	93190	183770	107680	167714	48464	22764	27841	81596
MEAN	1369	2201	22140	4115	3328	5928	3589	5410	1615	734.3	898.1	2720
MAX	6480	19100	55000	15600	11400	14800	11600	19700	5190	889	3730	12800
MIN	397	584	5230	1130	1430	1320	1080	983	835	638	638	645
CFSM	0.73	1.17	11.8	2.19	1.78	3.16	1.91	2.89	0.86	0.39	0.48	1.45
IN.	0.84	1.31	13.62	2.53	1.85	3.65	2.14	3.33	0.96	0.45	0.55	1.62

e Estimated

07026040 OBION RIVER AT U.S. HIGHWAY 51 NEAR OBION, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	933.9	2082	3737	4770	4846	4404	3900	2961	1902	1411	1043	959.7
MAX	3576	15500	22140	26640	17120	15810	11770	15540	10970	4783	6643	5041
(WY)	1991	1958	2002	1937	1990	1975	1973	1983	1970	1975	1971	1950
MIN	249	372	495	587	543	628	678	487	323	301	277	264
(WY)	1944	1955	1944	1944	1941	1941	1941	1936	1936	1944	1936	1956

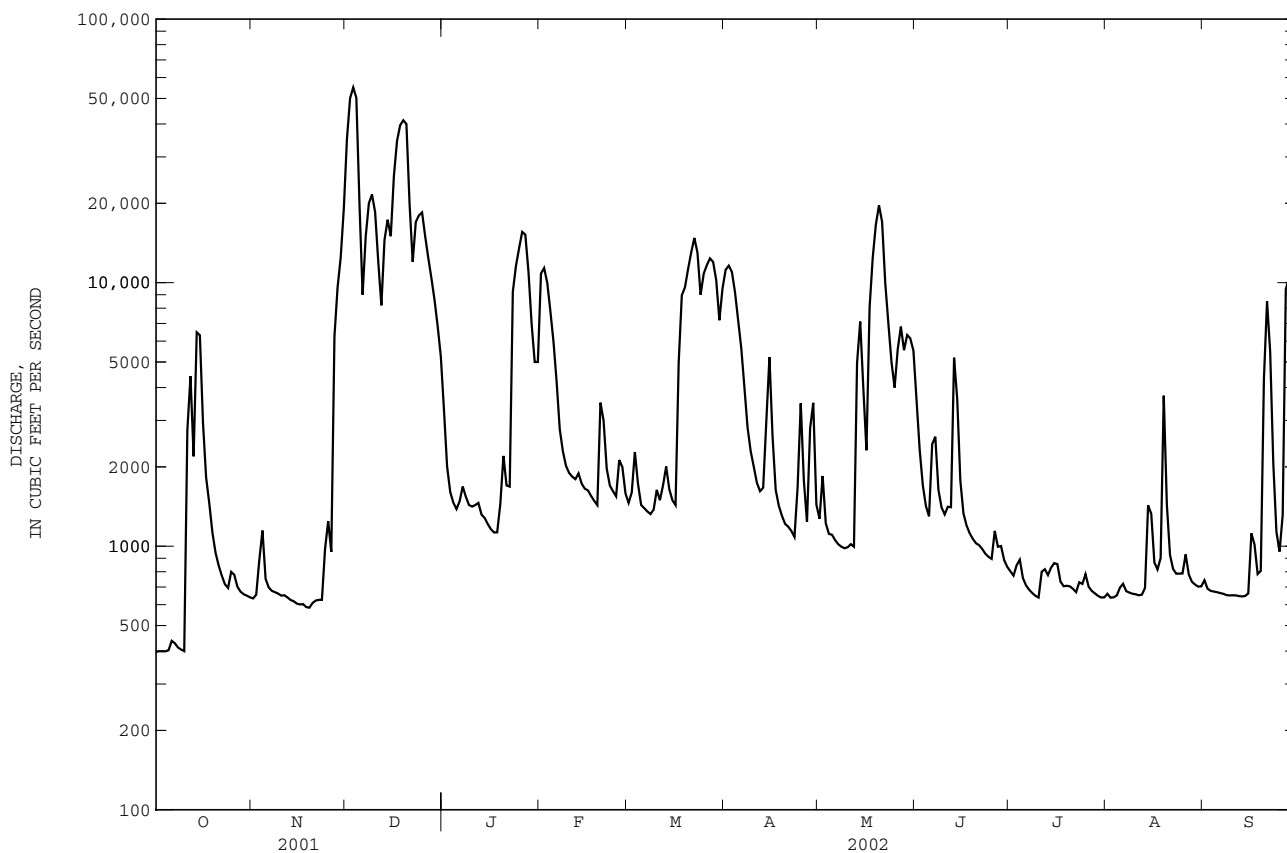
SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1929 - 2002

ANNUAL TOTAL	1655511		
ANNUAL MEAN	4536		2739
HIGHEST ANNUAL MEAN			5351 1973
LOWEST ANNUAL MEAN			569 1941
HIGHEST DAILY MEAN	55000	Dec 3	99500 Jan 24 1937
LOWEST DAILY MEAN	397	Oct 1	15 Feb 4 1937
ANNUAL SEVEN-DAY MINIMUM	409	Oct 1	233 Oct 6 1943
MAXIMUM PEAK FLOW	55800	Dec 3	99500 Jan 24 1937
MAXIMUM PEAK STAGE	38.78	Dec 3	40.40 Jan 24 1937
INSTANTANEOUS LOW FLOW			a230 Oct 7 1943
ANNUAL RUNOFF (CFSM)	2.42		1.46
ANNUAL RUNOFF (INCHES)	32.85		19.85
10 PERCENT EXCEEDS	12400		7040
50 PERCENT EXCEEDS	1430		1030
90 PERCENT EXCEEDS	650		413

a Minimum under conditions of no backwater from Mississippi River.



07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mi east of Blue Bank, 0.8 mi west of the spillway, and 3.3 mi southeast of Tiptonville.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Data collection platform. Datum of gage is 270.22 ft above NGVD of 1929 based on Benchmark E-13, supplementary adjustment of 1958.

REMARKS.--Records good. Estimated record is based on once daily observer readings from U.S. Fish and Wildlife Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.65 ft, from recorded range in stage, about Apr. 26, 1973; minimum, 9.59 ft, July 6, 7, 8, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1937 reached a stage of about 17.0 ft, at spillway, present datum, from information by local resident. Minimum stage at spillway, 9.30 ft, Nov. 20, 21, 1953 at a datum of 270.29 ft above sea level.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 14.37 ft, Dec. 19; minimum, 11.11 ft, Oct. 5.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.24	11.23	11.23	12.43	12.35	12.41	13.29	13.20	13.26	13.32	13.21	13.26
2	11.23	11.19	11.21	12.52	12.41	12.46	13.30	13.27	13.29	13.21	13.15	13.18
3	11.20	11.16	11.18	12.53	12.50	12.52	13.28	13.23	13.25	13.17	13.07	13.11
4	11.18	11.15	11.17	12.51	12.49	12.50	13.23	13.16	13.19	13.07	13.00	13.04
5	11.33	11.11	11.19	12.52	12.49	12.51	13.17	13.11	13.14	13.00	12.98	12.99
6	11.26	11.22	11.24	12.50	12.48	12.49	13.21	13.14	13.19	13.03	12.98	13.00
7	11.23	11.22	11.22	12.48	12.47	12.47	---	---	e13.19	13.03	12.92	12.98
8	11.22	11.19	11.20	12.58	12.45	12.48	---	---	---	12.93	12.83	12.87
9	11.19	11.15	11.16	12.51	12.45	12.47	---	---	---	12.87	12.82	12.85
10	---	---	e11.13	12.45	12.42	12.44	---	---	---	12.88	12.82	12.85
11	---	---	e11.28	12.48	12.44	12.46	---	---	---	12.87	12.81	12.84
12	---	---	e11.38	12.46	12.43	12.44	---	---	---	12.81	12.77	12.79
13	---	---	e11.49	12.43	12.39	12.41	---	---	---	12.77	12.73	12.75
14	---	---	e12.03	12.41	12.39	12.40	---	---	---	12.73	12.67	12.70
15	---	---	e12.35	12.41	12.40	12.41	---	---	---	12.71	12.69	12.70
16	---	---	---	12.41	12.40	12.40	---	---	---	12.69	12.62	12.66
17	---	---	---	12.40	12.40	12.40	---	---	e13.90	12.72	12.64	12.69
18	---	---	---	12.40	12.37	12.38	14.30	14.02	14.18	12.70	12.64	12.66
19	---	---	---	12.47	12.35	12.41	14.37	14.30	14.34	12.70	12.62	12.66
20	---	---	---	12.43	12.40	12.42	14.36	14.28	14.32	12.62	12.57	12.59
21	---	---	---	12.40	12.36	12.38	14.31	14.26	14.29	12.58	12.52	12.56
22	---	---	e12.56	12.39	12.35	12.37	14.26	14.11	14.19	12.64	12.54	12.57
23	---	---	e12.44	12.38	12.33	12.36	14.26	14.12	14.18	12.79	12.64	12.68
24	12.58	12.33	12.46	12.43	12.28	12.34	14.15	14.04	14.12	13.11	12.79	13.00
25	12.53	12.45	12.51	12.44	12.33	12.41	14.15	13.96	14.03	13.20	13.11	13.15
26	12.55	12.49	12.52	12.47	12.40	12.42	13.96	13.84	13.91	13.24	13.20	13.22
27	12.55	12.51	12.53	12.59	12.46	12.49	13.84	13.76	13.79	13.26	13.24	13.25
28	12.51	12.48	12.49	12.83	12.51	12.67	13.76	13.64	13.68	13.25	13.15	13.20
29	12.49	12.46	12.47	12.97	12.75	12.87	13.72	13.57	13.63	13.17	13.09	13.12
30	12.48	12.47	12.47	13.21	12.92	13.10	13.57	13.43	13.49	13.12	13.06	13.10
31	12.47	0.12	11.93	---	---	---	13.43	13.32	13.37	13.27	13.01	13.15
MONTH	12.58	0.12	11.79	13.21	12.28	12.48	14.37	13.11	13.72	13.32	12.52	12.91

07027000 REELFOOT LAKE NEAR TIPTONVILLE, TN--Continued

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	13.48	13.25	13.38	12.79	12.73	12.77	13.11	13.03	13.07	12.74	12.59	12.68
2	13.50	13.48	13.49	12.84	12.73	12.79	13.14	12.96	13.02	12.73	12.62	12.67
3	13.49	13.44	13.46	12.88	12.80	12.84	13.14	13.01	13.05	12.72	12.64	12.67
4	13.52	13.41	13.46	12.87	12.75	12.80	13.03	12.98	13.01	12.66	12.62	12.63
5	13.42	13.30	13.35	12.82	12.78	12.80	12.99	12.93	12.96	12.62	12.57	12.59
6	13.30	13.24	13.28	12.80	12.75	12.78	12.94	12.90	12.92	12.58	12.38	12.51
7	13.25	13.18	13.21	12.79	12.74	12.77	12.90	12.83	12.86	12.61	12.53	12.57
8	13.18	13.13	13.15	12.76	12.67	12.73	12.85	12.71	12.80	12.59	12.43	12.51
9	13.14	13.05	13.09	12.80	12.58	12.71	12.91	12.84	12.87	12.60	12.47	12.56
10	13.11	13.03	13.07	12.84	12.79	12.81	12.87	12.82	12.85	12.64	12.59	12.61
11	13.11	13.02	13.06	12.82	12.76	12.79	12.83	12.77	12.79	12.60	12.53	12.56
12	13.03	13.00	13.01	12.86	12.81	12.84	12.78	12.74	12.76	12.55	12.43	12.49
13	13.06	12.97	13.01	12.82	12.78	12.80	12.79	12.76	12.78	12.85	12.47	12.71
14	12.97	12.91	12.94	12.78	12.70	12.74	12.84	12.77	12.81	12.72	12.67	12.70
15	12.91	12.88	12.89	12.82	12.71	12.75	12.89	12.83	12.85	12.72	12.70	12.71
16	12.88	12.81	12.85	12.83	12.78	12.81	12.89	12.84	12.87	12.71	12.66	12.69
17	12.88	12.84	12.86	12.78	12.72	12.75	12.89	12.83	12.86	13.22	12.69	13.06
18	12.84	12.76	12.80	12.78	12.73	12.76	12.86	12.79	12.83	13.28	13.19	13.24
19	12.86	12.69	12.76	12.99	12.76	12.83	12.80	12.76	12.78	13.24	13.22	13.23
20	12.90	12.79	12.85	13.14	12.99	13.08	12.76	12.70	12.73	13.23	13.18	13.21
21	13.00	12.90	12.94	13.25	13.11	13.18	12.70	12.53	12.60	13.19	13.09	13.15
22	13.00	12.93	12.96	13.23	13.06	13.12	12.64	12.60	12.61	13.09	12.97	13.03
23	12.93	12.90	12.91	13.06	12.98	13.01	12.61	12.55	12.58	12.97	12.85	12.90
24	12.90	12.83	12.87	12.98	12.87	12.92	12.74	12.50	12.61	12.86	12.75	12.80
25	12.96	12.80	12.86	13.07	12.81	12.90	12.75	12.68	12.70	12.75	12.64	12.69
26	12.91	12.80	12.85	13.11	13.07	13.10	12.73	12.66	12.68	12.72	12.66	12.69
27	12.84	12.79	12.81	13.11	13.08	13.10	12.68	12.58	12.64	12.66	12.63	12.65
28	12.81	12.75	12.77	13.11	13.06	13.09	12.77	12.52	12.66	12.72	12.64	12.67
29	---	---	---	13.10	12.94	13.05	12.78	12.75	12.76	12.69	12.67	12.69
30	---	---	---	13.09	13.06	13.08	12.76	12.71	12.74	12.69	12.68	12.68
31	---	---	---	13.15	13.08	13.11	---	---	---	12.68	12.66	12.68
MONTH	13.52	12.69	13.03	13.25	12.58	12.89	13.14	12.50	12.80	13.28	12.38	12.75
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	12.66	12.62	12.65	12.19	12.16	12.18	11.87	11.86	11.87	11.64	11.61	11.63
2	12.65	12.62	12.63	12.16	12.12	12.15	11.88	11.85	11.86	11.62	11.59	11.60
3	12.62	12.59	12.61	12.15	12.12	12.13	11.85	11.83	11.85	11.60	11.57	11.58
4	12.60	12.53	12.57	12.13	12.11	12.12	11.84	11.78	11.82	11.59	11.57	11.58
5	12.66	12.49	12.57	12.11	12.09	12.10	11.81	11.78	11.80	11.59	11.55	11.57
6	12.66	12.61	12.65	12.11	12.06	12.09	11.84	11.78	11.80	11.55	11.51	11.54
7	12.62	12.59	12.61	12.07	12.02	12.05	11.81	11.75	11.78	11.52	11.49	11.50
8	12.60	12.54	12.57	12.02	11.97	12.01	11.75	11.70	11.73	11.50	11.48	11.49
9	12.55	12.51	12.53	11.98	11.95	11.97	11.71	11.66	11.68	11.49	11.46	11.48
10	12.52	12.49	12.51	12.05	11.90	11.97	11.66	11.62	11.64	11.47	11.45	11.47
11	12.51	12.46	12.49	12.08	12.02	12.06	11.62	11.61	11.62	11.48	11.43	11.46
12	12.51	12.46	12.48	12.07	12.04	12.06	11.62	11.52	11.59	11.44	11.40	11.42
13	12.56	12.49	12.52	12.11	12.05	12.07	11.72	11.57	11.63	11.40	11.37	11.39
14	12.56	12.52	12.54	12.17	12.06	12.08	11.77	11.70	11.74	11.40	11.34	11.37
15	12.52	12.49	12.51	12.19	12.08	12.13	11.76	11.69	11.73	11.59	11.39	11.45
16	12.51	12.46	12.49	12.18	12.14	12.16	11.74	11.72	11.73	11.58	11.56	11.57
17	12.49	12.47	12.48	12.15	12.10	12.13	11.73	11.64	11.70	11.64	11.54	11.59
18	12.47	12.44	12.45	12.13	12.08	12.12	11.91	11.69	11.74	11.60	11.57	11.58
19	12.44	12.41	12.43	12.12	12.08	12.10	11.80	11.77	11.79	11.71	11.55	11.60
20	12.42	12.40	12.41	12.11	12.09	12.10	11.81	11.77	11.79	11.90	11.71	11.81
21	12.40	12.37	12.39	12.10	12.07	12.09	11.78	11.76	11.77	11.97	11.90	11.94
22	12.42	12.35	12.38	12.08	12.04	12.06	11.76	11.71	11.75	12.06	11.97	12.01
23	12.36	12.32	12.34	12.07	12.04	12.05	11.78	11.70	11.73	12.04	12.00	12.02
24	12.32	12.28	12.31	12.08	12.04	12.06	11.80	11.68	11.77	12.05	12.01	12.03
25	12.31	12.28	12.29	12.05	12.01	12.03	11.79	11.77	11.78	12.04	12.02	12.03
26	12.30	12.25	12.27	12.01	11.96	11.99	11.79	11.75	11.77	12.38	12.03	12.13
27	12.26	12.20	12.23	11.97	11.88	11.93	11.77	11.74	11.75	12.38	12.32	12.34
28	12.22	12.20	12.21	11.93	11.86	11.90	11.76	11.71	11.74	12.46	12.38	12.43
29	12.21	12.19	12.20	11.89	11.80	11.85	11.73	11.69	11.71	12.50	12.46	12.48
30	12.20	12.18	12.19	11.90	11.83	11.87	11.70	11.66	11.68	12.50	12.49	12.50
31	---	---	---	11.90	11.86	11.87	11.66	11.63	11.65	---	---	---
MONTH	12.66	12.18	12.45	12.19	11.80	12.05	11.91	11.52	11.74	12.50	11.34	11.75

e Estimated

07027720 SOUTH FORK FORKED DEER RIVER NEAR OWL CITY, TN

LOCATION.--Lat 35°43'08", long 89°12'43", Haywood County, Hydrologic Unit 08010205, on left bank downstream side of the State Highway 54 bridge, 9.2 mi north of Brownsville, and 1.2 miles southwest of Owl City, Tennessee.

DRAINAGE AREA.--718 mi².

PERIOD OF RECORD.--February 2001 to current year.

GAGE.--Data collection platform. Datum of gage is 297 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Periodic observation of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 20	0030	3,540	17.17	May 17	2000	3,230	16.73
Dec 1	unknown	*25,800	*22.27	Aug 25	0200	4,210	17.83
Dec 27	unknown	unknown	unknown	Sep 20	1945	4,320	17.93
Jan 29	0945	4,330	17.94				

Minimum discharge, 194 ft³/s, Oct. 4, 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	207	427	e18300	710	2440	558	e4400	410	661	252	e470	264
2	206	410	e21500	634	2270	529	e4200	443	515	244	e360	e240
3	204	400	e25000	591	2200	514	e4200	430	443	261	e285	e235
4	201	389	e23000	572	1810	472	e4100	742	393	261	e250	e230
5	201	371	e16700	542	1340	420	3720	1120	367	250	e240	e228
6	379	364	e9740	643	1030	412	3170	910	381	237	e240	e228
7	349	359	e9600	983	1180	405	1860	625	378	232	e235	225
8	264	358	e3420	882	1430	407	1120	491	354	233	e235	235
9	235	352	e2660	756	1230	562	1050	421	332	244	e230	226
10	224	348	e2130	688	996	887	1110	406	333	270	e590	221
11	1420	346	e1840	742	926	644	900	505	616	243	e550	220
12	2370	342	e2340	739	801	2060	796	459	523	262	e274	216
13	2250	317	e3610	646	695	2360	738	735	480	445	e245	213
14	2850	315	e5260	594	624	2430	680	826	525	487	e291	215
15	2760	323	e5870	556	586	2500	640	605	650	456	301	328
16	2790	336	e6760	515	646	2450	596	461	445	315	651	344
17	2960	332	e7060	490	618	3490	556	1230	360	300	509	305
18	3200	331	e6910	1010	557	4570	819	1650	329	262	443	388
19	3430	338	5540	2110	542	7110	658	940	315	249	933	323
20	3450	e384	4610	2130	1550	12000	553	632	292	242	378	2030
21	2390	e377	3970	2190	1620	13500	505	501	278	240	285	2650
22	1140	e377	2860	1820	1290	10700	467	443	269	266	317	1150
23	723	e372	4020	1490	876	8340	493	409	261	461	376	624
24	595	e855	3650	3370	688	6690	431	387	256	411	980	403
25	676	e1450	3480	3560	602	5500	528	370	255	288	2710	327
26	722	e1020	3430	3630	639	4820	620	372	283	272	952	1460
27	565	e2130	3260	3880	779	4090	471	590	280	247	573	5430
28	493	e1930	2290	4140	596	3320	439	678	261	234	391	5720
29	452	e4470	1310	4200	---	2280	416	1270	277	234	335	6210
30	442	e13900	940	3830	---	1880	397	1810	266	e270	290	8060
31	437	---	782	2740	---	2850	---	1080	---	e490	272	---
MEAN	1245	1134	6834	1658	1091	3508	1354	708.1	379.3	295.4	490.0	1298
MAX	3450	13900	25000	4200	2440	13500	4400	1810	661	490	2710	8060
MIN	201	315	782	490	542	405	397	370	255	232	230	213

e Estimated

07027720 SOUTH FORK FORKED DEER RIVER NEAR OWL CITY, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1245	1134	6834	1658	2212	2200	1071	608.7	846.7	292.3	406.6	812.6
MAX	1245	1134	6834	1658	4303	3508	1354	708	1314	295	490	1298
(WY)	2002	2002	2002	2002	2001	2002	2002	2002	2001	2002	2002	2002
MIN	1245	1134	6834	1658	1091	891	788	509	379	289	323	327
(WY)	2002	2002	2002	2002	2002	2001	2001	2001	2002	2001	2001	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

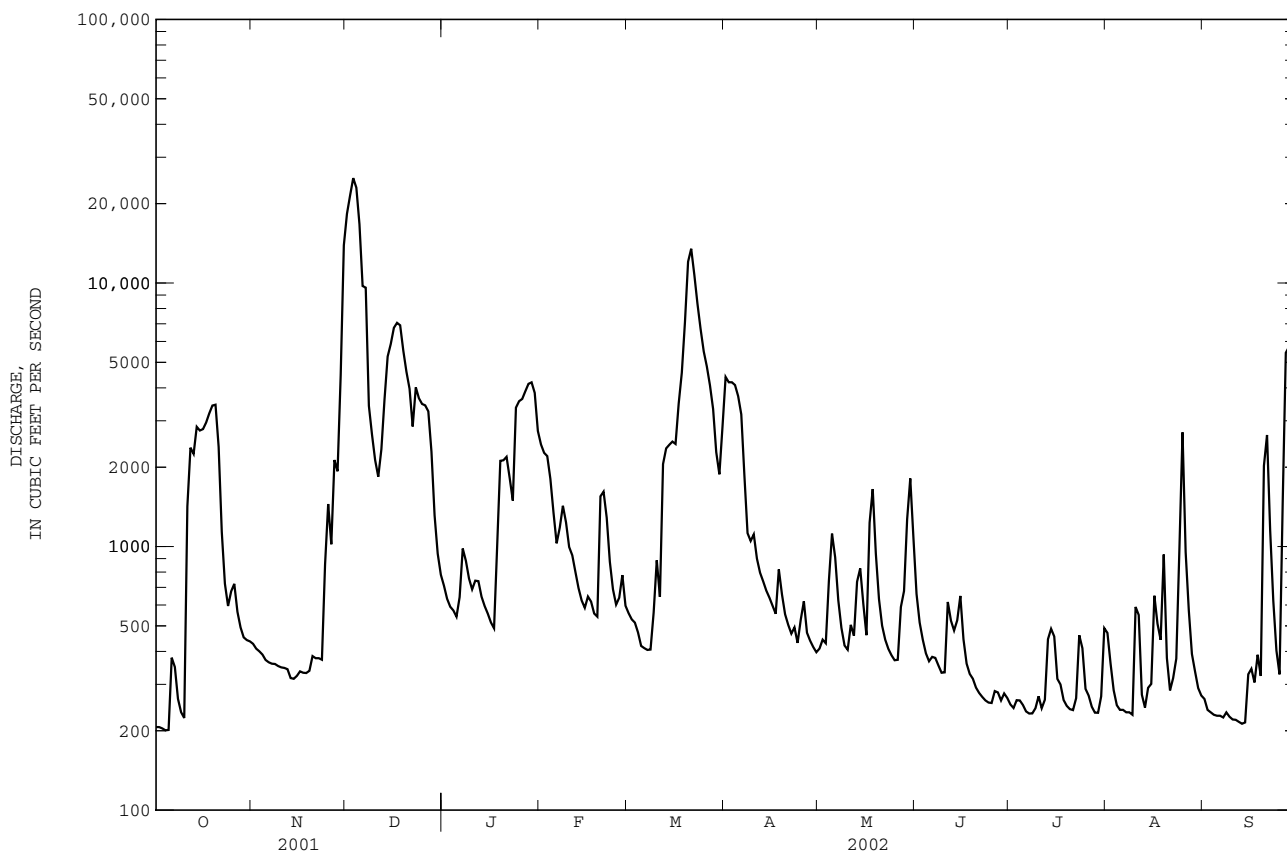
FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

ANNUAL MEAN	1509		1678		1367	
HIGHEST ANNUAL MEAN					1678	2002
LOWEST ANNUAL MEAN					873	2001
HIGHEST DAILY MEAN	25000	Dec 3	25000	Dec 3	25000	Dec 3 2001
LOWEST DAILY MEAN	120	Jul 16	201	Oct 4	120	Jul 16 2001
ANNUAL SEVEN-DAY MINIMUM	131	Jul 14	221	Sep 8	131	Jul 14 2001
MAXIMUM PEAK FLOW			25800	Dec 1	25800	Dec 1 2001
MAXIMUM PEAK STAGE			22.27	Dec 1	a22.27	Dec 1 2001
INSTANTANEOUS LOW FLOW			b194	Oct 4	120	Jul 16 2001
10 PERCENT EXCEEDS	3960		4050		3620	
50 PERCENT EXCEEDS	430		572		490	
90 PERCENT EXCEEDS	199		246		220	

a Peak stage from crest-stage gage.

b Also occurred Oct. 5.



07028960 MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW, TN

LOCATION.--Lat 35°44'39", long 88°50'47", Madison County, Hydrologic Unit 08010204, at upstream side of bridge on Highway 45 bypass, 5 mi north of Jackson, and at mile 30.5.

DRAINAGE AREA.--211 mi².

PERIOD OF RECORD.--October 1967 and April 1989 (discharge measurements only), October 1997 to current year.

GAGE.--Data collection platform. Datum of gage is 327 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of specific conductance and water temperature are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	0615	3,350	12.18	Mar 19	0845	6,710	16.24
Nov 29	unknown	10,400	19.01	Mar 31	0815	3,490	11.96
Dec 13	0100	4,280	13.19	Aug 24	2315	3,520	12.01
Dec 23	0145	4,030	12.82	Sep 20	1615	3,150	11.36
Jan 24	0515	4,320	13.25	Sep 28	unknown	*10,800	*19.21

Minimum discharge, 53 ft³/s, Oct. 3, 4, 5.

REVISIONS.--The maximum discharge for water year 1999 has been revised to 6,800 ft³/s, Jan. 24, 1999, gage height 16.34 ft. They supersede figures published in WDR-TN report for 1999.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	65	e6730	147	371	150	1690	164	192	72	143	107
2	55	65	e4530	137	387	146	1410	169	140	69	125	103
3	55	124	e1230	135	496	145	747	180	111	73	113	100
4	54	107	604	125	351	137	405	166	97	68	105	97
5	64	102	372	128	258	133	261	161	98	67	101	95
6	96	90	289	187	224	129	193	167	109	66	98	92
7	80	82	356	197	241	128	162	133	103	64	97	91
8	74	79	1200	190	246	124	155	110	97	63	96	91
9	68	83	678	168	263	161	175	102	91	64	95	91
10	69	81	571	153	231	169	169	105	262	69	155	91
11	434	79	388	e230	216	212	159	106	168	98	93	90
12	273	77	1670	e225	204	824	144	102	150	394	78	90
13	490	78	3420	e180	177	519	141	196	193	152	83	88
14	1470	78	3070	e170	155	602	133	176	134	169	109	127
15	597	81	2530	161	150	442	122	219	119	196	109	173
16	684	80	2560	153	153	347	114	157	99	158	208	185
17	658	81	2650	149	150	3420	110	552	89	126	171	189
18	376	81	1200	226	149	5210	108	343	83	103	294	138
19	219	87	840	654	145	6400	101	247	80	102	171	116
20	146	107	565	497	294	5350	99	174	75	104	115	928
21	108	106	359	501	277	3530	95	133	74	96	93	403
22	88	104	317	378	278	2420	86	116	73	89	103	327
23	79	97	2380	350	220	956	78	106	71	92	105	244
24	75	246	1100	2900	185	518	80	101	72	87	475	146
25	94	202	1050	2030	166	350	113	96	72	91	1160	108
26	87	257	630	2260	195	775	102	119	105	93	441	2340
27	80	1410	380	1110	173	472	105	120	78	91	384	e10500
28	74	1500	282	519	161	464	97	176	81	88	257	e9000
29	70	9550	227	334	---	351	86	178	80	83	165	e2000
30	68	e9940	187	260	---	445	85	170	76	88	131	e720
31	67	---	165	244	---	2630	---	208	---	156	117	---
TOTAL	6908	25119	42530	15098	6516	37659	7525	5252	3272	3331	5990	28870
MEAN	222.8	837.3	1372	487.0	232.7	1215	250.8	169.4	109.1	107.5	193.2	962.3
MAX	1470	9940	6730	2900	496	6400	1690	552	262	394	1160	10500
MIN	54	65	165	125	145	124	78	96	71	63	78	88
CFSM	1.06	3.97	6.50	2.31	1.10	5.76	1.19	0.80	0.52	0.51	0.92	4.56
IN.	1.22	4.43	7.50	2.66	1.15	6.64	1.33	0.93	0.58	0.59	1.06	5.09

e Estimated

07028960 MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

MEAN	122.4	290.6	503.2	525.8	375.3	527.8	305.8	432.4	170.1	152.4	162.7	247.6
MAX	223	837	1372	1099	574	1215	458	1431	290	430	418	962
(WY)	2002	2002	2002	1999	1998	2002	1998	1998	1998	1998	1998	2002
MIN	60.1	97.5	128	121	201	189	199	120	93.7	63.4	58.6	56.6
(WY)	2001	2001	2001	2001	2000	2001	2001	2000	2000	2000	1999	1999

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

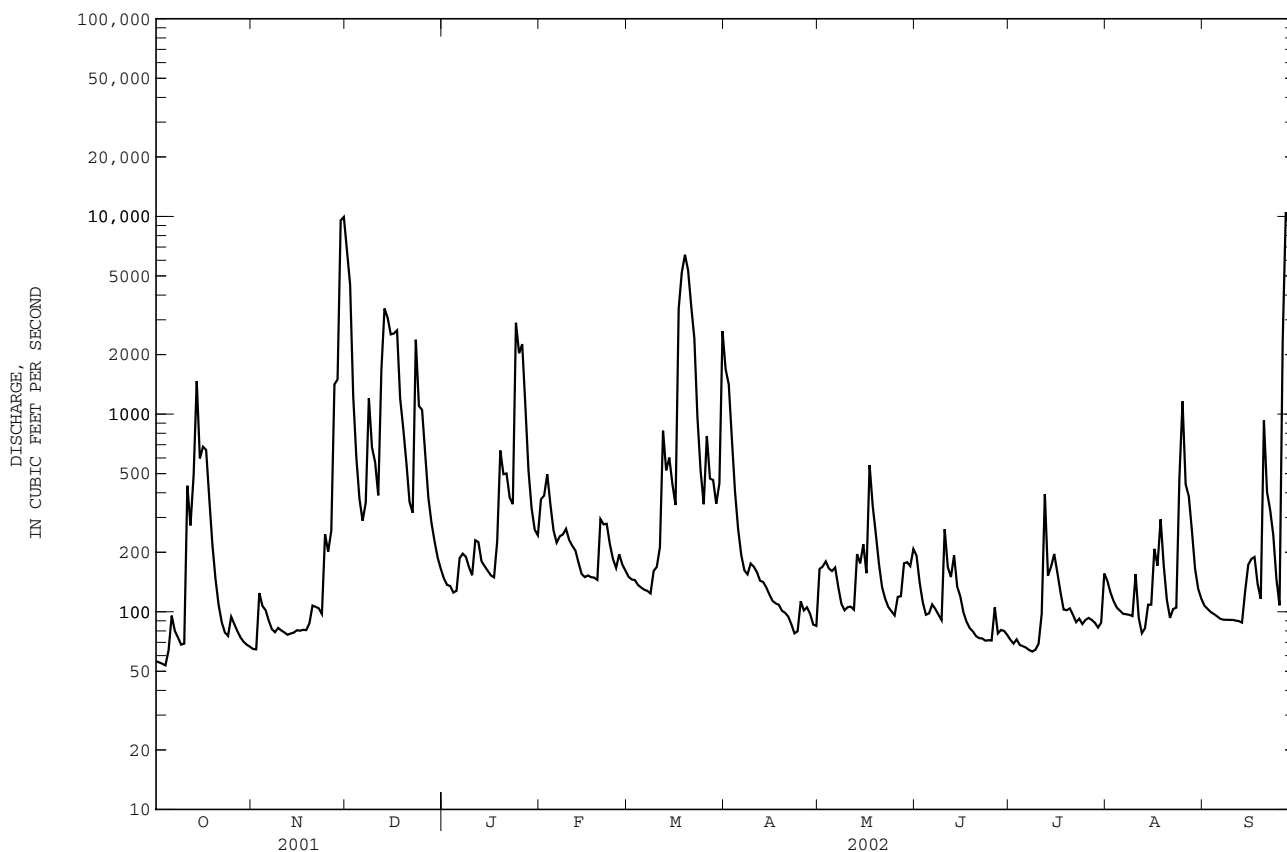
FOR 2002 WATER YEAR

WATER YEARS 1997 - 2002

ANNUAL TOTAL	124022	188070	
ANNUAL MEAN	339.8	515.3	317.8
HIGHEST ANNUAL MEAN			515 2002
LOWEST ANNUAL MEAN			145 2000
HIGHEST DAILY MEAN	9940 Nov 30	10500 Sep 27	10500 Sep 27 2002
LOWEST DAILY MEAN	41 Jul 15	54 Oct 4	41 Jul 15 2001
ANNUAL SEVEN-DAY MINIMUM	45 Jul 13	66 Oct 1	45 Jul 13 2001
MAXIMUM PEAK FLOW		10800 Sep 28	10800 Sep 28 2002
MAXIMUM PEAK STAGE		a19.21 Sep 28	a19.21 Sep 28 2002
INSTANTANEOUS LOW FLOW		b53 Oct 3	40 Jul 15 2001
ANNUAL RUNOFF (CFSM)	1.61	2.44	1.51
ANNUAL RUNOFF (INCHES)	21.87	33.16	20.46
10 PERCENT EXCEEDS	629	1070	520
50 PERCENT EXCEEDS	95	150	133
90 PERCENT EXCEEDS	55	78	60

a Peak stage determined from crest-stage gage.

b Also occurred Oct. 4, 5.



HATCHIE RIVER BASIN

07029500 HATCHIE RIVER AT BOLIVAR, TN

LOCATION.--Lat 35°16'31", long 88°58'36", Hardeman County, Hydrologic Unit 08010208, on left bank 25 ft upstream from bridge on State Highway 18, 250 ft upstream from Illinois Central Gulf Railroad bridge, 0.6 mi downstream from Spring Creek, 1.5 mi northeast of Bolivar, and at mile 135.1.

DRAINAGE AREA.--1,480 mi².

PERIOD OF RECORD.--July 1929 to current year.

GAGE.--Data collection platform. Datum of gage is 323.49 ft above NGVD of 1929, determined using benchmark Q-64, April 14, 1966.

REMARKS.--Records good except for estimated daily discharges, which are fair. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 18	1530	16,600	16.89				
Dec 1	2315	*52,300	*21.02	Mar 21	1815	10,800	16.87
Jan 26	1900	31,600	19.46				

Minimum discharge, 223 ft³/s, Sept. 13, 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	820	49200	3140	7180	3680	6700	1110	2210	429	471	275
2	369	771	45800	2530	6300	3350	7190	1260	2220	412	533	264
3	355	738	35000	2010	5670	2860	8490	1520	2180	421	494	259
4	341	e700	23200	1660	5190	2320	9020	2440	2030	444	439	253
5	326	e650	15300	1480	4780	1940	8150	3450	1620	510	396	255
6	340	e610	10900	1530	4470	1670	7070	3770	1200	472	364	251
7	376	e590	8610	1840	4190	1520	6180	3800	992	422	345	253
8	398	e560	7980	2170	3980	1440	5470	3950	888	396	337	243
9	401	e557	7200	2270	3830	e1390	5020	4250	787	388	318	240
10	369	555	6540	2170	3750	e1360	4650	4500	708	401	304	238
11	576	556	5860	2030	3690	e1700	4310	4460	965	451	289	234
12	1790	556	5500	1840	3610	e3150	4020	4220	1380	522	279	231
13	2920	556	6170	1670	3500	4470	3800	4010	1330	786	285	226
14	4950	557	6200	1550	3330	4760	3610	3820	1130	817	332	230
15	5320	557	6120	1420	3040	4910	3420	3630	1240	682	356	258
16	5920	557	6370	1350	2640	5550	3160	3350	1390	694	446	271
17	10800	557	7880	1270	2230	7060	2810	3030	1460	861	500	291
18	16100	556	9200	1290	1960	7870	2410	2590	1240	847	535	336
19	15200	557	9010	1850	1770	7700	2090	2190	951	714	549	405
20	12900	e620	7710	2950	2200	9300	1830	1940	779	597	525	378
21	10600	e750	6720	3560	3090	10400	1600	1520	671	554	548	378
22	8850	e890	6010	3670	3510	10300	1480	1200	595	610	448	407
23	7500	e980	6170	3870	3570	8680	1410	1010	541	766	373	495
24	6460	e1010	5770	5340	3700	7260	1360	900	505	838	340	457
25	5680	e1150	5420	13500	3870	6350	1270	819	477	760	349	380
26	4770	e1380	4940	28600	4090	e5570	1170	915	461	738	396	1050
27	3730	e2360	4640	27700	4090	e5310	1100	890	452	732	411	5730
28	2360	e4990	4410	20400	3920	4950	1060	919	461	634	358	5770
29	1380	16600	4170	14100	---	4560	1050	1290	459	569	316	5910
30	1010	37700	3890	10400	---	4490	1060	1770	444	490	291	11400
31	893	---	3610	8200	---	5650	---	2100	---	456	278	---
TOTAL	133371	79990	335500	177360	107150	151520	111960	76623	31766	18413	12205	37368
MEAN	4302	2666	10820	5721	3827	4888	3732	2472	1059	594.0	393.7	1246
MAX	16100	37700	49200	28600	7180	10400	9020	4500	2220	861	549	11400
MIN	326	555	3610	1270	1770	1360	1050	819	444	388	278	226
CFSM	2.91	1.80	7.31	3.87	2.59	3.30	2.52	1.67	0.72	0.40	0.27	0.84
IN.	3.35	2.01	8.43	4.46	2.69	3.81	2.81	1.93	0.80	0.46	0.31	0.94

e Estimated

07029500 HATCHIE RIVER AT BOLIVAR, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	757.9	1670	3295	4494	4709	4597	3933	2690	1445	923.3	621.1	724.8
MAX	4447	7457	12490	13420	14060	12110	10960	13540	8181	5933	2678	4651
(WY)	1933	1958	1983	1974	1948	1973	1979	1991	1997	1932	1931	1979
MIN	150	233	422	555	829	1053	711	444	209	189	193	127
(WY)	1957	1957	1955	1955	1934	1941	1986	1942	1941	1943	1954	1956

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

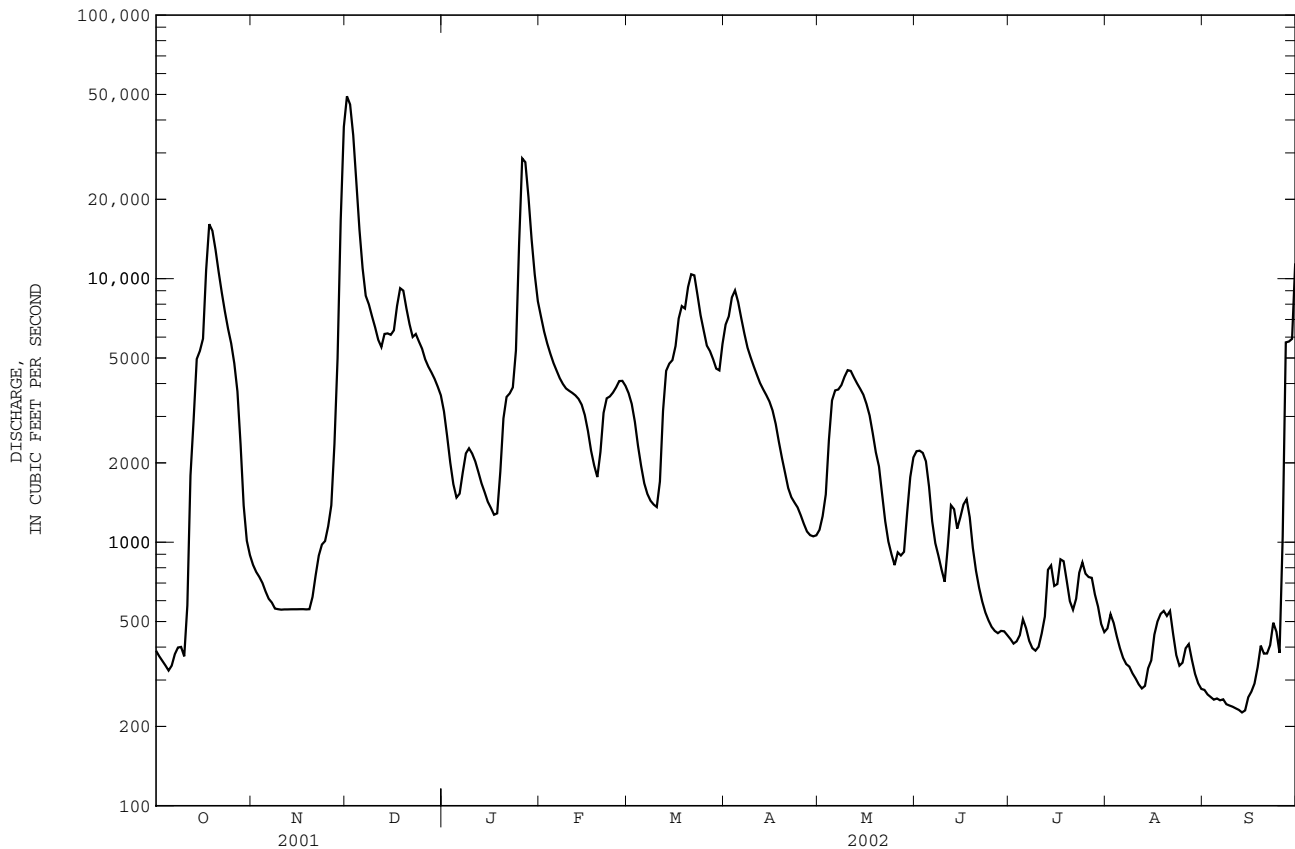
FOR 2002 WATER YEAR

WATER YEARS 1929 - 2002

ANNUAL TOTAL	1135154		1273226									
ANNUAL MEAN	3110		3488							2473		
HIGHEST ANNUAL MEAN										5003		1973
LOWEST ANNUAL MEAN										971		1941
HIGHEST DAILY MEAN	49200	Dec 1	49200	Dec 1					59300	Mar 18		1973
LOWEST DAILY MEAN	159	Aug 7	226	Sep 13					80	Sep 1		1943
ANNUAL SEVEN-DAY MINIMUM	175	Aug 3	235	Sep 8					85	Aug 26		1943
MAXIMUM PEAK FLOW			52300	Dec 1					a61600	Mar 18		1973
MAXIMUM PEAK STAGE			21.02	Dec 1					21.66	Mar 18		1973
INSTANTANEOUS LOW FLOW			b223	Sep 13					78	Sep 2		1943
ANNUAL RUNOFF (CFSM)	2.10		2.36						1.67			
ANNUAL RUNOFF (INCHES)	28.53		32.00						22.71			
10 PERCENT EXCEEDS	7180		7700						6070			
50 PERCENT EXCEEDS	1070		1520						1100			
90 PERCENT EXCEEDS	330		357						272			

a From rating curve extended above 37,000 ft³/s.

b Also occurred Sept. 14.



LOOSAHATCHIE RIVER BASIN

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN

LOCATION.--Lat 35°18'37", long 89°38'23", Shelby County, Hydrologic Unit 08010209, on left bank 20 ft downstream from bridge on U.S. Highways 70 and 79, 1.5 mi upstream from Beaver Creek, 1.5 mi northeast of Arlington, and at mile 30.4.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Data collection platform. Datum of the gage is 246.43 ft above NGVD of 1929, from reference mark, provided by FEMA.

REMARKS.--Records good. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	1815	8,410	18.04	Mar 12	0845	8,440	18.07
Nov 29	2100	*22,800	*24.06	aMar 18	0545	19,600	23.04
Dec 8	0215	5,620	14.20				
Dec 13	0200	10,800	19.75	Mar 31	1245	8,350	17.98
Dec 17	1200	9,770	19.21	Sep 20	1930	7,280	16.83
Dec 23	1345	7,140	16.62	Sep 27	0245	10,300	19.51
Jan 24	0930	9,100	18.72				

Minimum daily discharge, 89 ft³/s, Nov. 23.

a Flood marks from crest-stage gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	121	3810	146	2130	162	2270	308	137	102	121	138
2	106	120	634	137	503	164	554	146	129	106	118	135
3	104	116	436	136	316	152	341	205	125	126	116	132
4	103	112	368	128	309	143	258	1150	124	101	115	129
5	106	111	331	128	233	142	224	282	126	99	112	126
6	114	111	311	330	237	141	201	169	130	97	179	124
7	102	108	1070	305	592	140	185	136	121	95	263	121
8	101	107	3440	201	746	137	182	118	118	95	130	118
9	100	105	721	171	360	194	202	109	116	95	124	118
10	100	105	349	155	276	183	169	137	237	95	122	118
11	4240	103	248	154	222	216	158	136	223	96	119	116
12	3010	101	3410	141	199	6410	152	107	131	99	116	113
13	2410	100	9700	131	184	1530	149	433	133	117	117	112
14	2410	101	5950	126	171	474	141	224	163	155	205	113
15	484	98	1130	117	166	329	137	127	127	228	158	117
16	250	96	3800	112	169	1000	138	108	114	160	1030	113
17	201	94	8210	113	160	e7380	128	1610	111	136	418	204
18	183	93	2810	158	152	e15500	127	1100	110	117	220	144
19	171	93	593	1790	181	5270	123	287	109	115	277	279
20	162	92	342	576	1910	5280	119	208	108	111	164	4130
21	155	91	273	e296	484	1440	116	180	106	197	378	1540
22	149	90	386	217	278	501	127	167	105	236	170	223
23	145	89	5490	422	219	355	114	158	104	430	152	138
24	149	1380	1650	6950	196	300	111	151	103	291	270	119
25	286	548	481	2960	185	265	106	148	103	165	856	111
26	148	200	317	582	202	505	103	201	103	141	215	2700
27	133	3330	258	356	181	284	105	188	172	134	170	9520
28	128	3590	224	281	163	269	108	197	213	129	155	4760
29	125	17400	195	251	---	447	104	379	112	125	149	488
30	123	16700	168	228	---	4760	375	244	105	124	144	254
31	122	---	154	289	---	7260	---	154	---	127	141	---
TOTAL	16227	45505	57259	18087	11124	61333	7327	9267	3918	4444	7024	26553
MEAN	523.5	1517	1847	583.5	397.3	1978	244.2	298.9	130.6	143.4	226.6	885.1
MAX	4240	17400	9700	6950	2130	15500	2270	1610	237	430	1030	9520
MIN	100	89	154	112	152	137	103	107	103	95	112	111
MED	145	106	481	201	221	329	139	180	120	124	155	130
CFSM	2.00	5.79	7.05	2.23	1.52	7.55	0.93	1.14	0.50	0.55	0.86	3.38
IN.	2.30	6.46	8.13	2.57	1.58	8.71	1.04	1.32	0.56	0.63	1.00	3.77

e Estimated

07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	151.1	351.6	617.6	508.5	633.0	675.9	566.0	362.5	276.4	197.8	159.8	173.3
MAX	531	1517	1962	1479	2064	2038	2306	1497	1609	1155	521	885
(WY)	1997	2002	1988	1974	1990	1997	1991	1983	1974	1989	1974	2002
MIN	73.4	75.6	106	94.5	128	141	107	93.8	86.7	87.5	80.5	73.3
(WY)	1970	1972	1977	1981	1995	1986	1978	1988	1972	1970	1999	1999

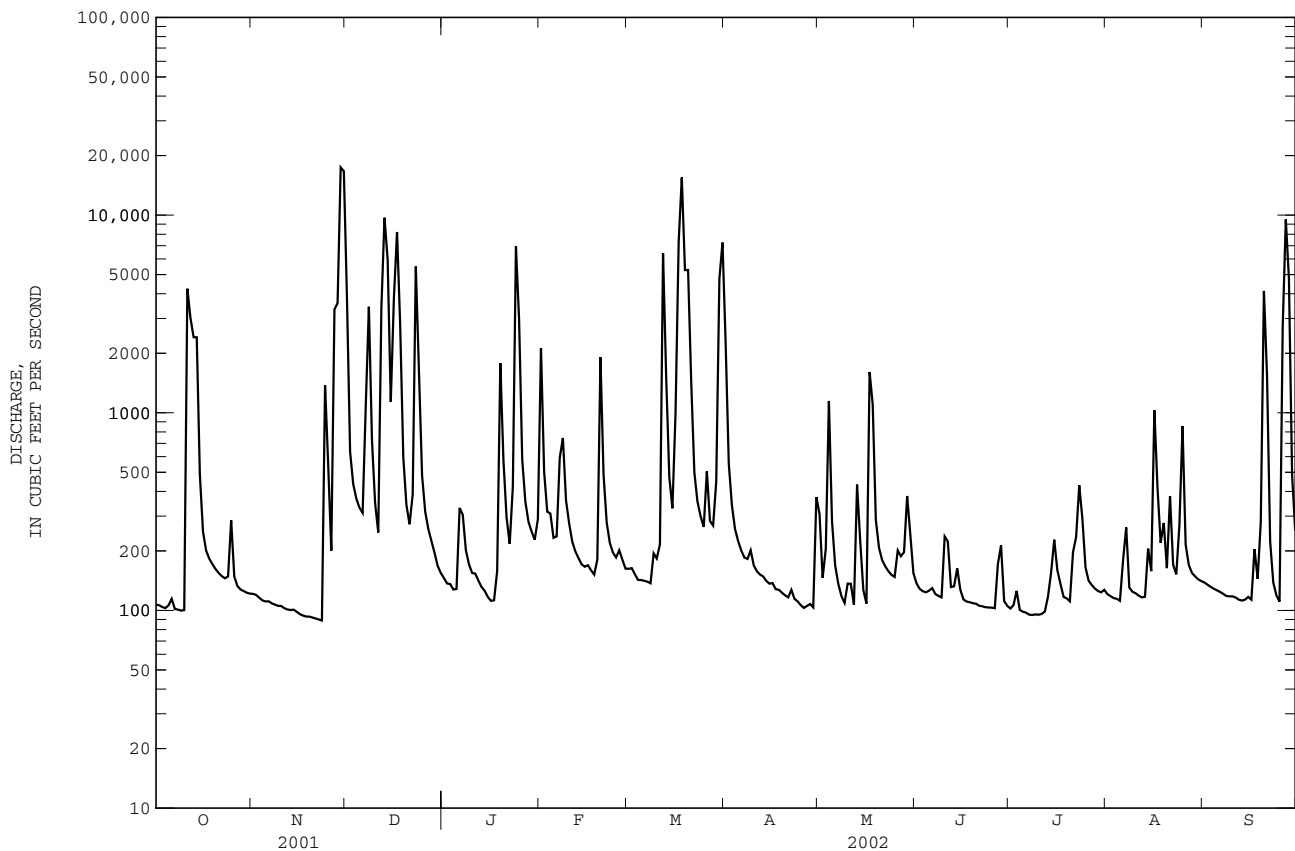
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1970 - 2002

ANNUAL TOTAL	194124	268068										
ANNUAL MEAN	531.8	734.4								388.1		
HIGHEST ANNUAL MEAN										769		1989
LOWEST ANNUAL MEAN										154		1986
HIGHEST DAILY MEAN	17400	Nov 29	17400	Nov 29	19900	Dec 26	1987					
LOWEST DAILY MEAN	84	Jan 16	89	Nov 23	66	Apr 7	1974					
ANNUAL SEVEN-DAY MINIMUM	87	Jan 5	92	Nov 17	68	Nov 5	1982					
MAXIMUM PEAK FLOW					27400	Dec 25	1987					
MAXIMUM PEAK STAGE					25.27	Dec 25	1987					
INSTANTANEOUS LOW FLOW					66	Apr 6	1974					
ANNUAL RUNOFF (CFSM)	2.03		2.80			1.48						
ANNUAL RUNOFF (INCHES)	27.56		38.06			20.13						
10 PERCENT EXCEEDS	852		1570			600						
50 PERCENT EXCEEDS	117		158			119						
90 PERCENT EXCEEDS	91		105			85						



07030392 WOLF RIVER AT LAGRANGE, TN

LOCATION.--Lat 35°01'57", long 89°14'48", Fayette County, Hydrologic Unit 08010210, on right bank upstream side of bridge on Yager Road, 0.95 mi south of LaGrange, and at mile 72.6.

DRAINAGE AREA.--210 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1995 to current year.

GAGE.--Data collection platform. Datum of gage is 350 ft above NGVD of 1929, from topographic map.

REMARKS.--Records good except for estimated discharges, which are poor. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov 30	0145	*11,300	*15.43	Mar 18	1645	1,910	11.54
Dec 14	1700	2,030	11.63				
Jan 25	1245	2,120	11.69	Apr 1	0730	2,900	12.17
Mar 13	1115	3,000	12.23	Sep 28	0215	4,940	13.17

Minimum discharge, 68 ft³/s, Oct. 4, 5.

REVISIONS.--The maximum discharges for some water years have been revised as shown in the following table. They supersede figures published in WDR-TN reports for 1997, 1999, and 2001.

Water year	Date	Discharge (ft ³ /s)	Gage height (ft)
1997	Mar. 2, 1997	5,150	13.27
1999	Mar. 14, 1999	4,820	13.11
2001	Feb. 17, 2001	6,040	13.66

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	87	3660	223	e560	237	2580	275	203	131	166	118
2	69	86	1480	213	e570	221	1220	262	177	125	180	115
3	70	86	1000	208	e386	212	620	328	161	138	154	112
4	69	85	684	200	346	204	412	798	151	133	140	110
5	71	85	487	197	308	197	345	1090	144	122	128	108
6	81	83	385	253	310	190	313	1040	156	120	121	105
7	81	81	329	307	357	186	298	486	162	119	116	104
8	75	80	370	327	402	185	287	306	155	114	111	103
9	72	81	526	291	387	195	310	256	153	123	109	103
10	72	85	608	243	349	200	335	248	171	136	111	103
11	207	84	413	220	315	199	340	272	297	156	112	102
12	740	82	381	209	290	1370	299	299	350	191	111	101
13	796	83	951	202	252	2550	274	304	307	344	110	99
14	1140	83	1580	196	234	1200	261	297	262	243	132	102
15	790	82	1720	187	226	527	252	290	290	243	166	117
16	512	81	1020	181	224	672	240	257	284	197	174	132
17	371	81	904	191	219	1130	228	226	222	160	205	193
18	209	81	1040	212	214	1400	216	262	178	151	226	186
19	133	82	797	491	213	1570	208	268	159	172	219	151
20	108	86	508	751	e564	1510	200	260	149	162	178	147
21	96	85	360	790	e768	1360	192	217	142	185	173	161
22	91	84	318	444	e526	1040	194	190	136	161	152	145
23	87	85	896	486	352	561	199	178	131	229	134	131
24	86	121	1070	e1370	292	392	201	170	128	332	139	121
25	105	192	806	e1990	258	346	188	164	128	340	233	117
26	100	177	436	e1690	293	392	172	166	125	249	256	308
27	95	815	334	e913	279	397	169	170	130	185	226	3040
28	95	1280	301	e568	261	377	170	168	158	155	180	3770
29	92	5450	273	e430	---	331	175	226	154	140	143	1560
30	90	9620	252	e411	---	628	200	255	141	130	130	721
31	87	---	237	e379	---	1990	---	222	---	133	123	---
TOTAL	6760	19573	24126	14773	9755	21969	11098	9950	5504	5519	4858	12485
MEAN	218.1	652.4	778.3	476.5	348.4	708.7	369.9	321.0	183.5	178.0	156.7	416.2
MAX	1140	9620	3660	1990	768	2550	2580	1090	350	344	256	3770
MIN	69	80	237	181	213	185	169	164	125	114	109	99
CFSM	1.04	3.11	3.71	2.27	1.66	3.37	1.76	1.53	0.87	0.85	0.75	1.98
IN.	1.20	3.47	4.27	2.62	1.73	3.89	1.97	1.76	0.97	0.98	0.86	2.21

e Estimated

07030392 WOLF RIVER AT LAGRANGE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	159.1	265.3	360.0	433.0	471.7	510.2	348.6	268.4	228.7	147.0	143.9	180.4
MAX	274	652	778	745	1018	956	492	455	628	207	278	416
(WY)	1997	2002	2002	1999	2001	1997	1998	1999	1997	1997	1998	2002
MIN	69.9	149	176	173	233	227	261	116	112	79.7	80.5	68.4
(WY)	2001	2001	2001	2000	1996	2000	1996	2001	2000	2001	2000	2000

SUMMARY STATISTICS

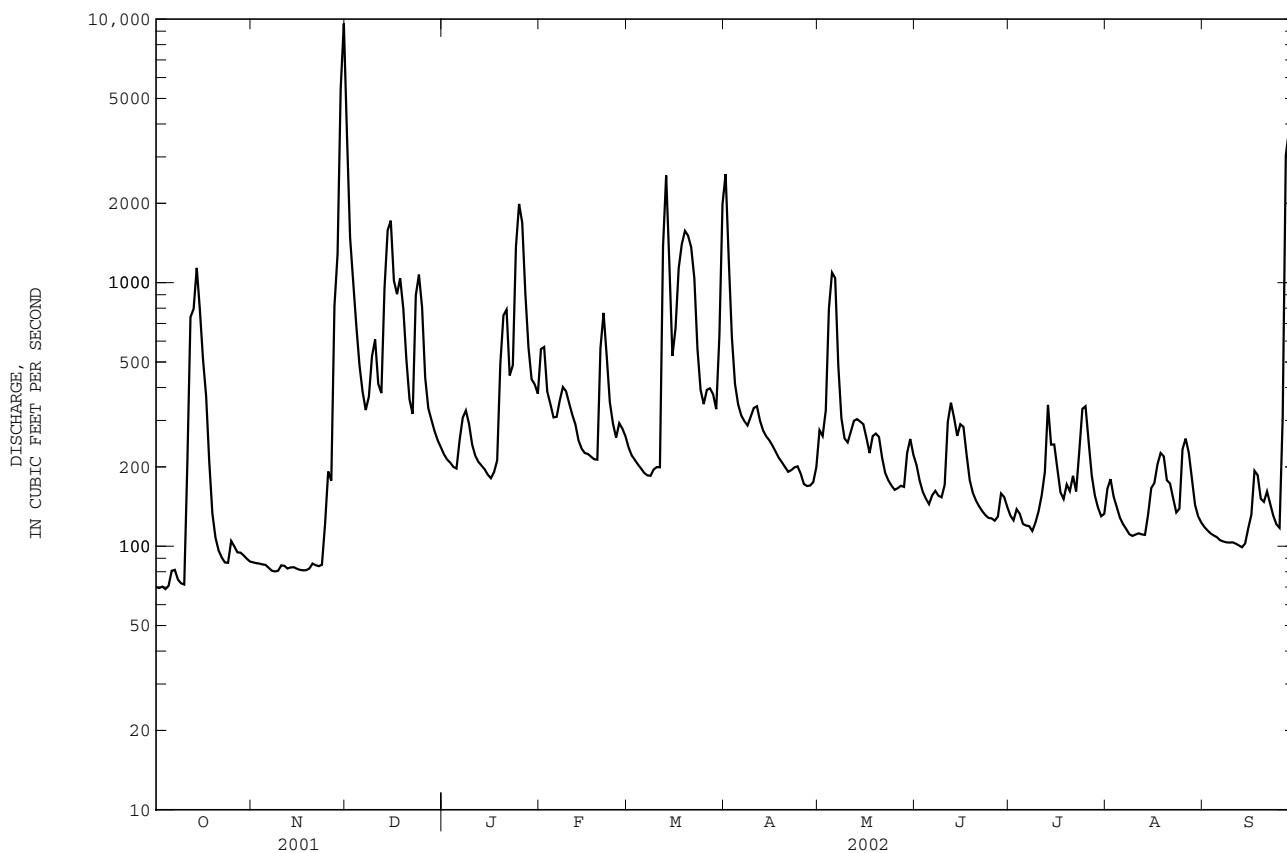
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1995 - 2002

ANNUAL TOTAL	118658	146370	
ANNUAL MEAN	325.1	401.0	290.8
HIGHEST ANNUAL MEAN			412
LOWEST ANNUAL MEAN			73.5
HIGHEST DAILY MEAN	10100	Feb 17	9620
LOWEST DAILY MEAN	65	Aug 26	69
ANNUAL SEVEN-DAY MINIMUM	69	Aug 21	73
MAXIMUM PEAK FLOW			11300
MAXIMUM PEAK STAGE			15.43
INSTANTANEOUS LOW FLOW			a68
ANNUAL RUNOFF (CFSM)	1.55	1.91	1.38
ANNUAL RUNOFF (INCHES)	21.02	25.93	18.81
10 PERCENT EXCEEDS	602	847	546
50 PERCENT EXCEEDS	124	208	179
90 PERCENT EXCEEDS	75	89	84

a Also occurred Oct. 5.



WOLF RIVER BASIN

07030392 WOLF RIVER AT LAGRANGE, TN--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--October 1995 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LILITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV 14...	1000	38	5.9	12.0	763	9.6	89	17	14	.7	2.96	<.008	.24
DEC 05...	1445	30	6.6	12.5	761	8.2	77	12	10	2.2	1.54	<.008	.17
JAN 09...	1230	32	6.9	4.5	752	11.4	90	8	7	2.4	2.33	<.008	.30
FEB 04...	1500	32	6.8	7.5	764	11.5	96	13	11	2.0	2.06	<.008	.25
MAR 12...	1200	28	6.8	11.0	757	9.9	90	9	8	1.7	1.57	E.004	.32
APR 24...	1230	49	7.0	19.5	762	7.2	78	21	17	.8	2.03	<.008	.20
MAY 08...	1200	38	6.2	22.0	764	6.9	79	16	13	1.4	1.61	E.006	.21
JUL 15...	1400	37	5.8	24.0	762	6.8	81	E14	E12	1.4	1.95	<.008	.21
AUG 08...	1015	43	5.9	22.0	766	7.6	86	19	15	.5	2.55	E.005	.29

Date	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)
NOV 14...	<.04	.21	.44	.047	<.02
DEC 05...	E.03	.47	.64	.145	E.02
JAN 09...	<.04	.26	.56	.049	<.02
FEB 04...	<.04	.37	.62	.070	E.01
MAR 12...	E.04	1.1	1.4	.35	.03
APR 24...	<.04	.34	.54	.049	E.01
MAY 08...	.08	.47	.68	.099	.02
JUL 15...	<.04	.49	.71	.145	.02
AUG 08...	<.04	.20	.48	.043	<.02

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07030500 WOLF RIVER AT ROSSVILLE, TN

LOCATION.--Lat 35°03'15", long 89°32'28", Fayette County, Hydrologic Unit 08010210, on left bank 85 ft downstream from county highway bridge, 0.3 mi upstram from Hurricane Creek, 0.4 mi north of Rossville, 5.0 miles downstream from Grissum Creek, and at mile 43.7.

DRAINAGE AREA.--503 mi².

PERIOD OF RECORD.--July 1929 to January 1972, May 2001 to current year.

REVISED RECORDS.--WSP 807: 1935. WSP 1117: 1930. WSP 1177: 1932. WSP 1281: 1935, 1946(M), drainage area. WSP 1391: 1937-38.

GAGE.--Data collection platform. Datum of gage is 300.74 ft above NGVD of 1929 determined from Tennessee Highway Department reference tablet. Prior to June 13, 1939, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Periodic observation of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 14	1130	4,300	9.61	Mar 21	0345	7,850	11.46
Nov 30	0600	*24,000	*14.57	Apr 1	0915	7,640	11.37
Dec 14	1100	7,110	11.13	Sep 21	0945	3,210	8.82
Dec 23	1715	5,490	10.32	Sep 27	1400	10,700	12.29
Jan 26	0315	7,970	11.51				

Minimum daily discharge, 158 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	303	17100	493	1200	511	6840	809	398	269	391	305
2	167	286	8540	459	1210	488	6230	568	377	272	317	286
3	163	288	5380	440	1090	464	4610	629	359	297	305	270
4	158	280	3240	419	884	428	2540	1850	334	272	304	261
5	176	278	1830	409	755	411	1210	1780	318	262	292	252
6	205	270	1220	537	697	399	828	1580	307	254	309	246
7	206	267	921	603	783	392	670	1270	295	243	338	242
8	186	265	1210	536	839	387	600	1240	290	234	297	239
9	179	262	1480	526	772	433	621	1010	288	235	272	237
10	173	e260	1480	533	735	505	584	719	287	250	260	237
11	996	258	1070	516	684	488	554	576	317	304	253	235
12	2310	257	1790	475	622	4190	558	496	394	302	250	233
13	3050	265	5560	442	566	5770	560	552	438	467	257	231
14	4080	268	6740	421	520	5270	529	659	519	417	1290	234
15	3530	270	5580	403	483	e3600	495	575	501	448	1260	264
16	2660	270	4410	389	467	e3400	466	507	446	448	1030	261
17	1860	268	4610	382	448	e5000	446	569	433	436	897	758
18	1160	265	4770	414	428	e7200	439	758	422	386	559	553
19	805	267	3710	1080	431	e7800	420	607	390	385	574	413
20	616	275	2330	1330	1240	e7400	401	469	346	357	419	1590
21	489	272	1380	1160	1250	6810	387	436	313	333	712	2830
22	410	275	1110	1040	1060	5670	391	429	290	329	428	1090
23	367	279	4290	1100	987	3560	386	397	274	428	377	427
24	343	329	4920	3040	908	1910	371	364	264	399	692	351
25	345	401	3710	6300	706	1140	361	343	257	394	1390	313
26	338	368	2080	7450	661	1010	356	331	253	424	603	1640
27	327	1110	1350	5800	592	921	358	323	251	454	413	9780
28	316	1790	968	3830	537	807	356	318	261	423	401	8620
29	314	12200	734	1900	---	741	359	328	266	368	387	6950
30	313	23000	603	1120	---	1640	491	382	271	324	364	5680
31	311	---	536	873	---	4920	---	420	---	357	331	---
TOTAL	26727	45446	104652	44420	21555	83665	33417	21294	10159	10771	15972	45028
MEAN	862.2	1515	3376	1433	769.8	2699	1114	686.9	338.6	347.5	515.2	1501
MAX	4080	23000	17100	7450	1250	7800	6840	1850	519	467	1390	9780
MIN	158	257	536	382	428	387	356	318	251	234	250	231
CFSM	1.71	3.01	6.71	2.85	1.53	5.37	2.21	1.37	0.67	0.69	1.02	2.98
IN.	1.98	3.36	7.74	3.29	1.59	6.19	2.47	1.57	0.75	0.80	1.18	3.33

e Estimated

07030500 WOLF RIVER AT ROSSVILLE, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2002, BY WATER YEAR (WY)

MEAN	264.9	537.4	795.8	1185	1269	1111	899.9	615.3	417.0	350.4	253.9	312.9
MAX	862	2452	3376	4403	3704	2699	2144	3771	1963	2245	608	1501
(WY)	2002	1946	2002	1937	1948	2002	1955	1953	1949	1932	1950	2002
MIN	132	181	226	245	288	286	237	181	144	129	121	121
(WY)	1932	1957	1966	1940	1941	1941	1930	1942	1941	1942	1943	1942

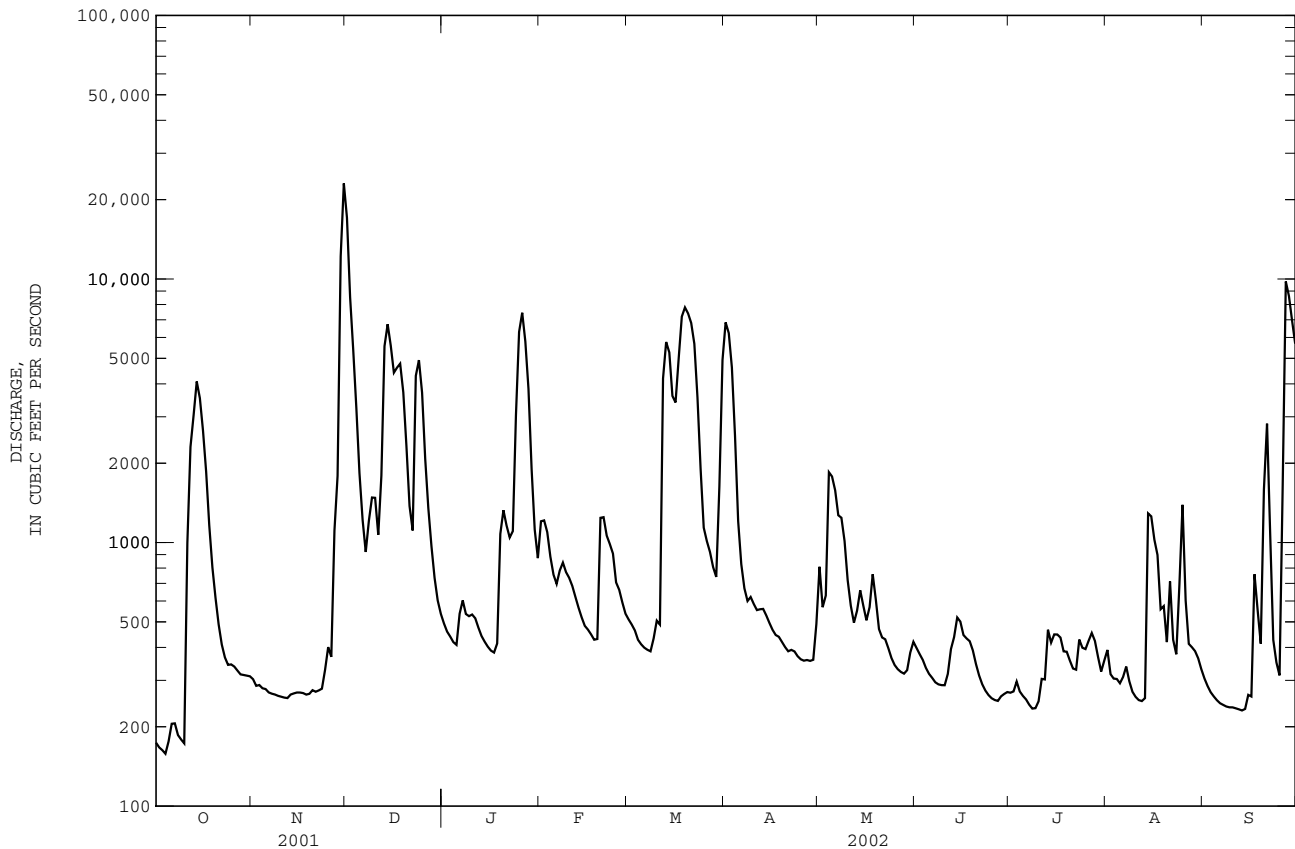
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1929 - 2002

ANNUAL TOTAL	208263		463106									
ANNUAL MEAN	942.4		1269							660.7		
HIGHEST ANNUAL MEAN										1269		2002
LOWEST ANNUAL MEAN										244		2001
HIGHEST DAILY MEAN	23000	Nov 30	23000	Nov 30	31000	Jan 21	1935					
LOWEST DAILY MEAN	158	Oct 4	158	Oct 4	100	Sep 16	1942					
ANNUAL SEVEN-DAY MINIMUM	178	Sep 30	178	Oct 1	105	Aug 27	1943					
MAXIMUM PEAK FLOW			24000	Nov 30	40000	Jan 20	1935					
MAXIMUM PEAK STAGE			14.57	Nov 30	13.75	Jan 20	1935					
INSTANTANEOUS LOW FLOW					100	Sep 16	1942					
ANNUAL RUNOFF (CFSM)	1.87		2.52		1.31							
ANNUAL RUNOFF (INCHES)	15.40		34.25		17.85							
10 PERCENT EXCEEDS	2260		3710		1350							
50 PERCENT EXCEEDS	261		446		290							
90 PERCENT EXCEEDS	204		261		166							



WOLF RIVER BASIN

07031650 WOLF RIVER AT GERMANTOWN, TN

LOCATION.--Lat 35°06'59", long 89°48'05", Shelby County, Hydrologic Unit 08010210, on left bank, 30 ft downstream of bridge on Germantown Road, 1.7 mi north of U.S. Hwy 72, 3.6 mi downstream of Grays Creek, 4.0 mi northeast of I-240 and U.S. Highway 72 interchange, and at mile 18.9.

DRAINAGE AREA.--699 mi².

PERIOD OF RECORD.--October 1969 to September 1986, October 1990 to current year. Prior to September 1977 published as "near Germantown".

GAGE.--Data collection platform. Datum of gage is 235.76 ft above NGVD of 1929, determined from Tennessee Department of Transportation brass disc, and from BM-79-4-19. Apr. 21, 1986, to Dec. 30, 1990, water-stage recorder at site 2.1 mi downstream at datum 9.94 ft lower.

REMARKS.--Records fair, except for periods of estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data. National Weather Service rain gage and telemeter at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 1	1615	*26,100	*25.52	Mar 17	2315	16,300	20.68
Dec 17	0900	10,700	16.88	Sep 28	1045	11,700	17.62

Minimum daily discharge, 247 ft³/s, Oct. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	341	24400	699	2510	572	5730	1240	491	315	467	440
2	258	338	22200	646	1770	546	5730	862	461	350	393	411
3	253	338	10500	609	1500	515	4700	981	438	1110	337	391
4	247	336	5070	576	1270	473	3430	2320	417	399	324	374
5	314	334	3330	549	1060	440	2360	2110	393	333	318	360
6	314	327	2330	925	1010	420	1430	1920	409	312	623	347
7	287	323	1940	860	1180	408	996	1650	365	298	596	339
8	277	320	2070	764	1280	400	855	1410	353	286	359	330
9	271	319	e2400	682	1140	470	817	1320	347	280	314	322
10	281	320	e2600	668	1010	520	755	1120	384	281	289	317
11	3540	320	e2150	639	908	740	690	868	424	323	273	310
12	1890	321	e3500	596	824	5240	650	727	390	372	268	301
13	3770	319	e6700	552	746	4870	640	794	1730	391	278	294
14	2900	320	e7300	505	678	4580	621	777	1010	563	739	288
15	2540	317	7100	469	626	4000	585	760	628	473	1450	293
16	2360	316	6700	441	e600	4120	547	676	566	495	2690	327
17	2070	314	8120	430	e570	12700	510	1430	514	482	1530	492
18	1700	312	5400	471	e530	11500	483	1500	494	468	1050	752
19	1210	327	4160	1270	e500	6340	467	1210	470	524	820	630
20	851	320	3270	1470	e1350	7340	442	779	428	475	703	3170
21	662	319	2510	1380	e1400	6220	416	614	387	434	728	2280
22	537	316	2350	1170	e1200	5160	463	568	358	368	760	2330
23	464	317	6060	1170	1090	4010	404	533	336	381	604	1240
24	460	1820	5070	4340	1010	2820	385	485	334	489	804	600
25	444	579	4020	4380	894	2000	363	452	322	414	1410	479
26	395	555	3160	5390	754	1670	350	443	305	420	1280	2680
27	381	2150	2300	6470	697	1320	344	415	473	449	728	7060
28	362	4200	1640	4670	614	1120	344	529	477	458	590	11100
29	354	16400	1170	3180	---	990	338	640	323	418	557	8450
30	348	17800	915	2160	---	2240	1320	441	318	393	525	5870
31	346	---	777	1700	---	5640	---	473	---	639	478	---
TOTAL	30354	50938	161212	49831	28721	99384	37165	30047	14345	13393	22285	52577
MEAN	979.2	1698	5200	1607	1026	3206	1239	969.3	478.2	432.0	718.9	1753
MAX	3770	17800	24400	6470	2510	12700	5730	2320	1730	1110	2690	11100
MIN	247	312	777	430	500	400	338	415	305	280	268	288
CFSM	1.40	2.43	7.44	2.30	1.47	4.59	1.77	1.39	0.68	0.62	1.03	2.51
IN.	1.62	2.71	8.58	2.65	1.53	5.29	1.98	1.60	0.76	0.71	1.19	2.80

e Estimated

07031650 WOLF RIVER AT GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	453.8	767.3	1559	1378	1352	1752	1528	1218	775.7	458.3	444.0	495.3
MAX	1223	1991	5200	3504	3256	4854	4805	4542	1986	985	1199	1753
(WY)	1997	1980	2002	1974	1991	1980	1991	1991	1974	1994	1998	2002
MIN	213	239	439	372	532	569	448	364	271	251	240	244
(WY)	1970	1972	1981	1981	1995	1986	1986	1992	1972	2001	1986	1986

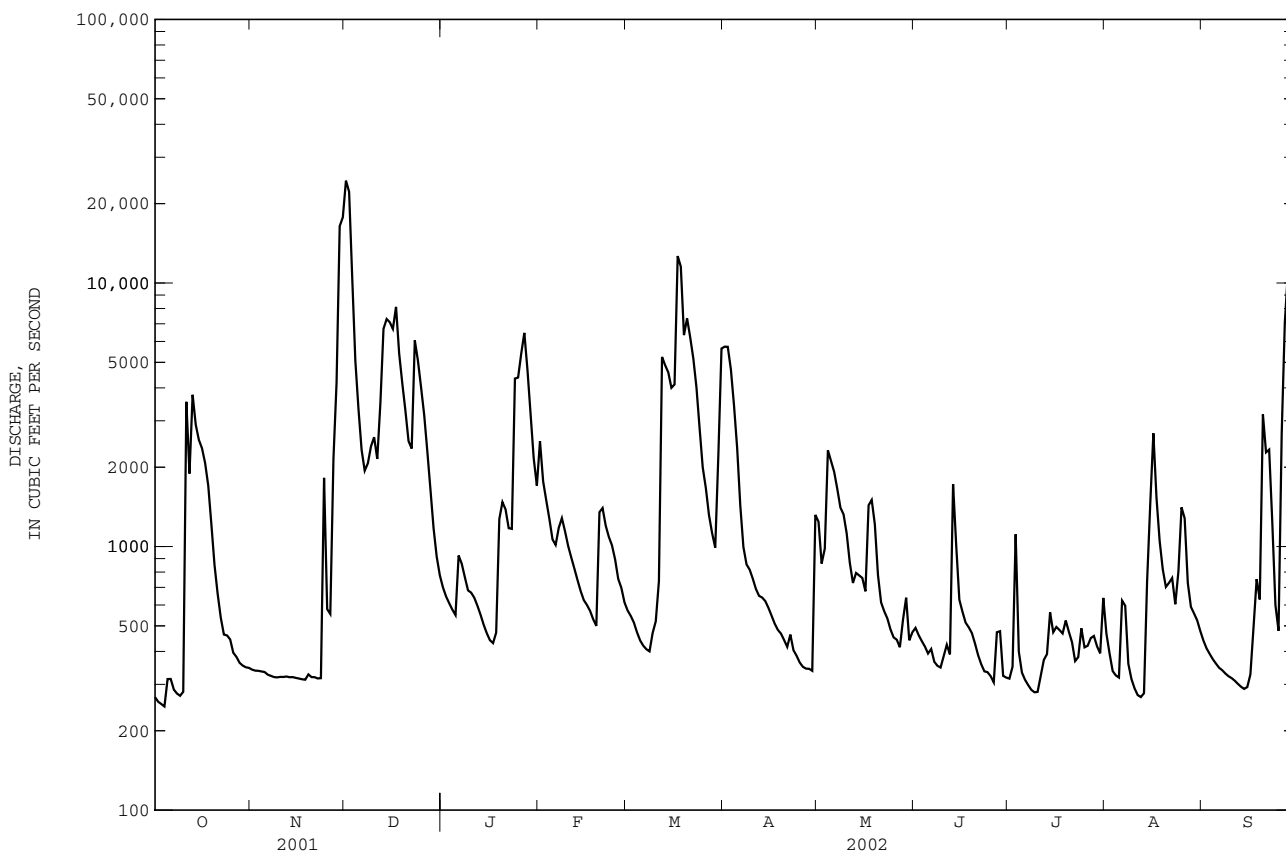
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1970 - 2002

ANNUAL TOTAL	432108		590252									
ANNUAL MEAN	1184		1617							1014		
HIGHEST ANNUAL MEAN										1807		1991
LOWEST ANNUAL MEAN										497		1986
HIGHEST DAILY MEAN	24400	Dec 1	24400	Dec 1					30400	Mar 14		1975
LOWEST DAILY MEAN	199	Jun 27	247	Oct 4					196	Sep 15		1972
ANNUAL SEVEN-DAY MINIMUM	212	Jun 21	277	Oct 1					199	Sep 12		1972
MAXIMUM PEAK FLOW			26100	Dec 1					33400	Mar 14		1975
MAXIMUM PEAK STAGE			25.52	Dec 1					27.98	Mar 14		1975
INSTANTANEOUS LOW FLOW			235	Oct 4					176	Jul 29		2000
ANNUAL RUNOFF (CFSM)	1.69		2.31						1.45			
ANNUAL RUNOFF (INCHES)	23.00		31.41						19.71			
10 PERCENT EXCEEDS	2440		4260						2180			
50 PERCENT EXCEEDS	359		600						525			
90 PERCENT EXCEEDS	229		319						278			



07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN

LOCATION.--Lat 35°10'09", long 89°51'58", Shelby County, Hydrologic Unit 08010210, on Sycamore View Road, 0.4 miles northwest of Interstate 40.

DRAINAGE AREA.--30.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1996 to current year.

REVISED RECORDS.--Revised maximum discharges and revised daily discharges in ft³/s for the 1996-2001 water years are given in the tables below. These figures supersede those published in reports for 1996-2001.

GAGE.--Water-stage recorder. Datum of gage is 229.00 ft above NGVD of 1929 provided by Tennessee Department of Transportation.

REMARKS.--Records rated poor below 10 ft³/s and fair above 10 ft³/s. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR WATER YEARS 1996-2002.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1996	Jun 9	0600	*16,400	*13.24	No other peak greater than base discharge.			

Minimum discharge, 0.00 ft³/s, Aug. 24.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1997	Oct 28	0000	5,920	12.91	Mar 5	1100	6,690	13.76
	Nov 30	0845	4,970	11.85	Sep 23	2115	5,800	12.78
	Mar 2	0100	*9,820	*16.84	Sep 24	0645	4,560	11.38

Minimum discharge, 0.05 ft³/s, Oct. 13.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1998	Mar 7	0930	*7,450	*14.55	Aug 8	2315	5,080	11.98

Minimum discharge, 0.04 ft³/s, on several days.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
1999	Mar 13	0730	4,590	11.41	May 5	2115	*7,990	*15.09
	Apr 26	1015	6,300	13.33				

Minimum discharge, 0.00 ft³/s, on many days.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2000	Peak discharges greater than base discharge base of 4,500 ft ³ /s and maximum (*)							
	Dec 12	1315	*3,640	*10.14				

Minimum discharge, 0.00 ft³/s, on several days, gage height, 1.60 ft.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2001	Peak discharges greater than base discharge base of 4,500 ft ³ /s and maximum (*)							
	May 31	1545	*4,110	*10.80				

Minimum discharge, 0.00 ft³/s, on several days.

Water Year	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
2002	Oct 11	1300	4,670	11.51	Mar 17	1915	8,530	15.62
	Nov 28	2215	*12,500	*18.98	Sep 20	1430	6,610	13.67
	Dec 2	0815	5,870	12.86	Sep 26	2200	4,610	11.43
	Dec 17	0515	8,530	15.62				
	Jan 24	0430	4,770	11.62				

Minimum discharge, 0.64 ft³/s, Oct. 5.

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR APRIL 1995 TO SEPTEMBER 1996
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e15	2.2	67	e0.13	34	1.4
2	---	---	---	---	---	---	e0.64	1.2	40	e0.50	16	33
3	---	---	---	---	---	---	e1.8	1.0	8.5	e0.30	11	3.6
4	---	---	---	---	---	---	e5.2	1.9	12	e0.74	11	11
5	---	---	---	---	---	---	e1.7	1.4	4.5	e1.4	4.4	12
6	---	---	---	---	---	---	e0.97	21	13	e0.45	2.4	0.95
7	---	---	---	---	---	---	e0.59	433	570	e0.23	1.5	0.36
8	---	---	---	---	---	---	e0.40	24	215	e9.9	1.9	0.32
9	---	---	---	---	---	---	e0.26	3.7	1920	e3.4	0.46	2.6
10	---	---	---	---	---	---	e0.19	2.0	52	e1.1	0.42	0.72
11	---	---	---	---	---	---	e0.22	206	17	e0.45	0.16	0.45
12	---	---	---	---	---	---	e1.0	14	4.4	e0.20	e1.0	0.35
13	---	---	---	---	---	---	e11	5.9	1.5	e0.50	e0.37	0.20
14	---	---	---	---	---	---	e3.6	e16	0.72	e11	e0.19	0.13
15	---	---	---	---	---	---	e2.0	e3.7	1.4	e3.1	e0.25	3.4
16	---	---	---	---	---	---	3.7	e6.9	1.7	e0.90	e0.70	60
17	---	---	---	---	---	---	4.6	e2.8	2.0	e0.35	e3.5	4.9
18	---	---	---	---	---	---	5.6	e1.2	28	e0.13	e1.0	0.51
19	---	---	---	---	---	---	23	e0.70	e5.1	e0.06	e0.60	0.32
20	---	---	---	---	---	---	80	e0.54	e1.1	e0.04	e0.35	0.73
21	---	---	---	---	---	---	14	e0.36	e0.79	e0.32	e0.20	61
22	---	---	---	---	---	---	46	e0.26	e0.45	e1.3	e0.15	2.3
23	---	---	---	---	---	---	79	e0.50	e0.62	e6.2	0.06	0.35
24	---	---	---	---	---	---	16	e0.37	e1.3	e3.0	0.02	0.19
25	---	---	---	---	---	---	10	e0.30	e3.5	e21	1.1	0.16
26	---	---	---	---	---	---	6.5	15	e2.2	e2.4	5.8	7.1
27	---	---	---	---	---	---	3.7	132	e1.2	e4.5	5.4	187
28	---	---	---	---	---	---	5.0	61	e0.54	e15	1.4	45
29	---	---	---	---	---	---	36	19	e0.27	e100	0.46	3.1
30	---	---	---	---	---	---	5.2	3.2	e0.18	183	0.51	0.74
31	---	---	---	---	---	---	---	2.6	---	439	0.97	---
TOTAL	---	---	---	---	---	---	382.87	983.73	2975.97	810.60	107.27	443.88
MEAN	---	---	---	---	---	---	12.76	31.73	99.20	26.15	3.460	14.80
MAX	---	---	---	---	---	---	80	433	1920	439	34	187
MIN	---	---	---	---	---	---	0.19	0.26	0.18	0.04	0.02	0.13
CFSM	---	---	---	---	---	---	0.42	1.04	3.25	0.86	0.11	0.49
IN.	---	---	---	---	---	---	0.47	1.20	3.63	0.99	0.13	0.54

e Estimated

WOLF RIVER BASIN

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	e584	257	6.2	8.9	990	2.2	30	21	13	2.3	5.3
2	1.0	e15	34	4.9	5.8	e4500	1.8	7.1	24	11	1.7	3.0
3	1.7	e6.2	16	4.5	302	e313	2.4	13	6.4	9.5	1.8	2.0
4	2.3	e7.1	8.9	49	568	e152	108	4.5	3.3	14	3.0	0.94
5	2.1	e6.4	105	48	47	e3410	1200	2.9	3.1	7.9	13	0.38
6	1.7	e6.2	24	7.9	22	e275	33	3.6	3.3	5.6	4.3	0.17
7	0.86	192	11	4.6	105	e100	14	4.6	2.9	5.8	2.8	0.21
8	3.6	13	8.2	14	82	e17	8.0	1.8	4.8	34	28	564
9	1.6	5.8	7.0	34	16	21	5.3	3.5	5.3	16	30	29
10	0.17	4.0	6.9	11	9.5	41	3.7	3.2	117	22	17	5.6
11	0.10	2.9	6.7	e4.6	6.3	12	164	2.1	30	17	23	2.3
12	0.08	1.4	206	e28	6.1	7.3	77	2.1	7.8	6.4	17	0.95
13	0.07	9.9	97	e12	191	224	10	1.3	3.5	446	12	3.2
14	0.17	16	178	e12	38	140	5.4	1.5	3.1	46	15	0.87
15	0.08	13	301	e263	19	16	4.5	1.7	2.9	230	23	0.21
16	0.07	8.6	513	81	15	9.0	3.8	1.7	28	19	4.5	0.15
17	22	210	279	14	14	18	3.5	1.7	734	10	2.5	2.0
18	116	67	6.5	9.7	14	140	2.5	1.8	32	7.3	1.7	2.9
19	6.0	26	8.3	8.8	17	408	2.5	137	13	6.8	4.3	0.19
20	2.8	24	7.9	8.0	23	21	8.4	103	8.5	6.4	e462	0.13
21	166	38	6.9	7.8	494	11	2.6	13	5.1	2.8	e19	0.14
22	186	30	6.9	17	34	8.1	27	7.6	3.0	116	2.6	0.64
23	25	27	70	9.9	20	5.5	12	6.4	1.5	56	1.6	1170
24	7.9	32	8.6	160	16	4.0	3.7	64	1.2	4.0	0.79	1850
25	5.6	240	10	19	12	145	2.8	45	5.2	1.6	0.46	29
26	205	88	6.9	11	83	30	11	13	347	0.95	0.35	12
27	512	49	22	63	195	20	380	242	173	28	1.6	5.1
28	835	44	21	66	90	6.4	235	25	650	14	0.80	2.3
29	17	142	14	18	---	4.6	35	14	99	48	0.49	1.3
30	7.3	2830	9.3	12	---	3.1	12	14	22	10	0.59	0.96
31	20	---	7.5	11	---	2.5	---	525	---	3.8	31	---
TOTAL	2151.30	4738.5	2264.5	1019.9	2453.6	11054.5	2381.1	1297.1	2360.9	1218.85	728.18	3694.94
MEAN	69.40	157.9	73.05	32.90	87.63	356.6	79.37	41.84	78.70	39.32	23.49	123.2
MAX	835	2830	513	263	568	4500	1200	525	734	446	462	1850
MIN	0.07	1.4	6.5	4.5	5.8	2.5	1.8	1.3	1.2	0.95	0.35	0.13
CFSM	2.28	5.18	2.40	1.08	2.87	11.7	2.60	1.37	2.58	1.29	0.77	4.04
IN.	2.62	5.78	2.76	1.24	2.99	13.48	2.90	1.58	2.88	1.49	0.89	4.51

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.40	157.9	73.05	32.90	87.63	356.6	46.07	36.79	88.95	32.73	13.48	68.98
MAX	69.4	158	73.0	32.9	87.6	357	79.4	41.8	99.2	39.3	23.5	123
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1996	1997	1997	1997
MIN	69.4	158	73.0	32.9	87.6	357	12.8	31.7	78.7	26.1	3.46	14.8
(WY)	1997	1997	1997	1997	1997	1997	1996	1996	1997	1996	1996	1996

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1996 - 1997

ANNUAL TOTAL	14858.62	35363.37	
ANNUAL MEAN	54.03	96.89	74.94
HIGHEST ANNUAL MEAN			96.9
LOWEST ANNUAL MEAN			31.2
HIGHEST DAILY MEAN	2830	Nov 30	4500
LOWEST DAILY MEAN	0.02	Aug 24	0.07
ANNUAL SEVEN-DAY MINIMUM	0.11	Oct 10	0.11
MAXIMUM PEAK FLOW			9820
MAXIMUM PEAK STAGE			16.84
ANNUAL RUNOFF (CFSM)	1.77		3.18
ANNUAL RUNOFF (INCHES)	18.12		43.13
10 PERCENT EXCEEDS	109		205
50 PERCENT EXCEEDS	4.4		11
90 PERCENT EXCEEDS	0.26		1.6

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.62	1.4	6.6	2.5	2.9	0.12	28	33	0.11	1.7	10	3.4
2	0.48	0.53	3.7	2.4	2.6	0.12	5.2	13	0.09	1.8	3.0	3.1
3	0.43	0.37	10	2.4	3.2	0.12	126	9.0	0.04	1.1	0.86	0.37
4	0.22	0.27	2.5	2.7	3.8	3.1	13	3.7	0.04	1.1	0.28	0.11
5	0.44	0.37	0.68	83	3.7	119	3.9	2.0	172	3.9	0.16	0.08
6	0.21	4.8	0.36	23	2.7	225	2.0	200	16	2.2	0.34	0.10
7	0.10	1.1	0.29	475	2.6	2470	2.2	87	0.73	1.5	274	0.27
8	0.16	0.83	9.2	157	3.9	48	268	8.4	0.34	7.6	862	0.56
9	3.0	0.55	4.1	47	4.4	5.8	24	2.2	7.9	69	448	0.17
10	3.0	1.8	3.9	13	230	0.12	6.3	5.9	7.5	7.7	25	0.58
11	0.83	2.0	1.8	11	281	0.07	3.3	1.6	1.8	97	728	0.29
12	0.51	8.6	0.64	13	5.1	0.12	3.3	2.2	16	43	75	0.51
13	67	143	0.60	6.9	0.80	0.09	1.6	0.43	3.4	9.4	22	0.60
14	14	8.4	0.43	6.3	0.31	0.14	5.1	0.28	0.83	22	6.4	0.74
15	2.3	2.9	0.31	543	1.2	0.99	1.9	0.59	0.26	32	1.9	0.18
16	0.75	2.6	0.29	250	544	2.3	7.6	0.30	0.12	16	0.79	0.08
17	0.37	2.6	0.29	115	338	20	2.4	0.14	0.71	2.6	0.15	0.08
18	0.25	0.77	0.29	173	19	3.5	62	0.39	1.0	0.89	0.07	0.07
19	0.27	0.36	0.33	61	5.5	344	22	0.33	37	11	0.08	0.06
20	0.24	0.37	0.36	16	3.2	26	1.8	0.49	5.0	19	0.08	134
21	2.4	0.76	68	10	1.7	4.8	91	1.3	0.96	3.2	0.06	77
22	2.1	1.7	5.1	66	1.7	2.8	12	1.6	0.45	2.6	0.08	27
23	0.62	0.79	1.7	27	1.8	2.9	2.8	1.2	0.36	41	0.08	27
24	61	0.60	455	13	0.57	7.2	0.43	0.65	0.42	224	0.05	3.5
25	83	0.45	13	8.1	0.41	4.7	0.06	1.3	0.45	378	0.08	11
26	174	0.36	19	7.3	67	5.0	0.05	296	0.69	39	0.04	3.1
27	2.4	0.33	20	17	10	5.0	396	18	1.6	23	0.08	0.31
28	0.93	0.25	5.8	6.2	0.34	4.8	520	2.1	0.81	99	0.19	9.2
29	0.59	0.18	13	4.3	---	3.7	280	19	0.28	480	0.24	14
30	0.55	0.54	8.0	4.0	---	3.6	911	6.8	0.26	40	0.39	14
31	1.8	---	3.5	3.8	---	103	---	0.57	---	72	1.2	---
TOTAL	424.57	189.58	658.77	2169.9	1541.43	3416.09	2802.94	719.47	277.15	1752.29	2460.60	331.46
MEAN	13.70	6.319	21.25	70.00	55.05	110.2	93.43	23.21	9.238	56.53	79.37	11.05
MAX	174	143	455	543	544	2470	911	296	172	480	862	134
MIN	0.10	0.18	0.29	2.4	0.31	0.07	0.05	0.14	0.04	0.89	0.04	0.06
CFSM	0.45	0.21	0.70	2.29	1.80	3.61	3.06	0.76	0.30	1.85	2.60	0.36
IN.	0.52	0.23	0.80	2.65	1.88	4.17	3.42	0.88	0.34	2.14	3.00	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	41.55	82.13	47.15	51.45	71.34	233.4	61.85	32.26	62.38	40.66	35.44	49.67
MAX	69.4	158	73.0	70.0	87.6	357	93.4	41.8	99.2	56.5	79.4	123
(WY)	1997	1997	1997	1998	1997	1997	1998	1997	1996	1998	1998	1997
MIN	13.7	6.32	21.3	32.9	55.1	110	12.8	23.2	9.24	26.1	3.46	11.0
(WY)	1998	1998	1998	1997	1998	1998	1996	1998	1998	1996	1996	1998

SUMMARY STATISTICS

FOR 1997 CALENDAR YEAR

FOR 1998 WATER YEAR

WATER YEARS 1995 - 1998

ANNUAL TOTAL	27481.99	16744.25	
ANNUAL MEAN	75.29	45.87	63.32
HIGHEST ANNUAL MEAN			96.9
LOWEST ANNUAL MEAN			31.2
HIGHEST DAILY MEAN	4500	Mar 2	4500
LOWEST DAILY MEAN	0.10	Oct 7	0.02
ANNUAL SEVEN-DAY MINIMUM	0.29	Oct 2	0.07
MAXIMUM PEAK FLOW			7450
MAXIMUM PEAK STAGE			14.55
ANNUAL RUNOFF (CFSM)	2.47		1.50
ANNUAL RUNOFF (INCHES)	33.52		20.42
10 PERCENT EXCEEDS	140		98
50 PERCENT EXCEEDS	6.4		2.6
90 PERCENT EXCEEDS	0.44		0.16

WOLF RIVER BASIN

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	20	10	7.2	e4.0	2.4	33	0.25	0.86	2.4	7.7	6.7
2	50	17	2.5	497	e1.7	174	5.1	0.10	0.05	1.2	4.0	8.7
3	195	23	0.44	43	e5.8	64	392	0.06	0.04	3.8	7.0	8.6
4	11	16	13	7.4	e1.7	6.1	615	4.1	0.38	0.25	6.4	12
5	92	12	43	2.5	e1.4	42	37	1650	0.03	0.20	7.2	5.8
6	189	7.9	2.7	2.0	1.4	234	40	340	0.03	9.5	7.7	6.1
7	437	6.1	243	2.2	90	14	8.8	12	3.8	2.4	9.5	6.2
8	12	22	220	159	9.2	e19	4.7	4.4	3.5	4.9	49	9.0
9	2.5	7.7	16	111	3.2	55	3.2	0.23	0.38	15	16	8.0
10	0.33	106	269	11	1.8	7.1	1.3	0.10	0.10	144	4.3	12
11	0.14	8.3	59	4.8	26	39	0.58	0.06	0.12	671	4.6	5.3
12	0.14	0.78	195	2.8	78	8.2	0.19	0.05	0.10	25	3.0	7.6
13	0.09	0.11	35	e1.6	5.1	1360	0.11	0.31	7.2	2.6	2.7	18
14	1.2	0.32	7.2	e1.7	1.7	425	73	0.51	9.6	0.25	2.8	15
15	2.7	1.3	2.7	e1.7	0.72	54	74	0.04	0.13	3.2	5.1	12
16	2.5	0.24	1.5	e1.7	0.74	16	5.3	0.03	0.05	64	1.3	12
17	4.3	0.04	1.3	e50	11	7.6	0.59	0.13	0.04	17	5.2	17
18	22	0.03	3.0	e23	1.9	6.8	0.11	8.8	0.06	1.4	10	12
19	34	0.03	39	e6.1	1.2	6.5	0.12	0.03	0.03	8.5	9.0	9.8
20	5.9	67	5.5	e6.1	0.64	96	0.39	0.01	0.02	11	7.1	19
21	1.1	4.7	1.3	e5.1	2.3	32	0.08	2.3	0.11	0.33	9.5	19
22	0.54	0.61	26	e418	e1.6	5.1	0.04	62	3.7	2.3	4.2	19
23	1.9	0.45	4.6	e10	e0.25	3.5	0.04	0.11	6.0	2.2	9.9	14
24	1.2	0.23	e7.6	e0.09	13	95	0.01	0.01	1.9	0.60	62	16
25	0.77	0.21	8.1	e80	2.2	3.9	32	0.03	1.2	1.7	11	9.0
26	6.2	0.19	5.9	e3.0	1.1	1.5	1470	0.02	355	6.7	6.6	9.3
27	8.9	0.11	3.0	e1.7	87	0.52	989	0.04	87	4.3	4.2	18
28	0.51	0.08	62	e1.7	36	0.22	36	0.04	2.1	1.0	6.6	15
29	7.9	0.16	8.0	e55	---	107	6.7	0.02	1.0	2.4	6.0	57
30	6.7	8.1	2.9	e5.0	---	9.8	2.3	0.01	0.06	0.96	6.3	8.4
31	3.7	---	1.1	e20	---	212	---	0.16	---	4.4	8.1	---
TOTAL	1119.22	330.69	1299.34	1611.3	377.74	3025.24	3925.65	2085.95	484.59	1014.49	304.0	395.5
MEAN	36.10	11.02	41.91	51.98	13.49	97.59	130.9	67.29	16.15	32.73	9.806	13.18
MAX	437	106	269	497	90	1360	1470	1650	355	671	62	57
MIN	0.09	0.03	0.44	1.6	0.09	0.22	0.04	0.01	0.02	0.20	1.3	5.3
CFSM	1.18	0.36	1.37	1.70	0.44	3.20	4.29	2.21	0.53	1.07	0.32	0.43
IN.	1.37	0.40	1.58	1.97	0.46	3.69	4.79	2.54	0.59	1.24	0.37	0.48

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	39.73	58.43	45.40	51.62	52.06	188.1	79.10	41.02	50.82	38.68	29.03	40.55
MAX	69.4	158	73.0	70.0	87.6	357	131	67.3	99.2	56.5	79.4	123
(WY)	1997	1997	1997	1998	1997	1997	1999	1999	1996	1998	1998	1997
MIN	13.7	6.32	21.3	32.9	13.5	97.6	12.8	23.2	9.24	26.1	3.46	11.0
(WY)	1998	1998	1998	1997	1999	1999	1996	1998	1998	1996	1996	1998

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1996 - 1999

ANNUAL TOTAL	18220.58	15973.71	
ANNUAL MEAN	49.92	43.76	57.74
HIGHEST ANNUAL MEAN			96.9
LOWEST ANNUAL MEAN			31.2
HIGHEST DAILY MEAN	2470	Mar 7	4500
LOWEST DAILY MEAN	0.03	Nov 18	0.00
ANNUAL SEVEN-DAY MINIMUM	0.07	Aug 20	0.02
MAXIMUM PEAK FLOW			7990
MAXIMUM PEAK STAGE			15.09
INSTANTANEOUS LOW FLOW			a0.00
ANNUAL RUNOFF (CFSM)	1.64		1.43
ANNUAL RUNOFF (INCHES)	22.22		19.48
10 PERCENT EXCEEDS	122		73
50 PERCENT EXCEEDS	3.6		5.1
90 PERCENT EXCEEDS	0.12		0.10

a Many days.

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	60	2.8	0.17	0.32	1.6	75	1.0	0.17	0.78	99	0.01
2	13	60	1.9	0.22	0.13	0.33	230	9.5	0.09	0.29	9.3	0.02
3	13	5.1	24	1.3	0.08	0.53	567	114	0.13	0.16	2.5	0.07
4	9.5	1.3	98	3.0	0.06	0.89	92	94	2.5	0.28	413	0.27
5	15	1.2	191	0.35	0.06	0.23	16	137	12	0.26	32	1.4
6	9.7	1.7	12	0.16	0.11	0.12	6.6	60	3.6	0.23	6.4	0.19
7	2.6	1.6	3.4	0.21	0.08	0.19	7.4	12	0.84	0.23	2.0	0.11
8	43	1.1	2.0	0.38	0.07	0.22	54	4.2	0.20	0.21	0.80	5.5
9	168	0.51	66	0.93	0.09	15	4.5	72	0.17	0.36	0.29	5.9
10	89	0.36	80	0.81	0.14	2.7	1.5	65	0.25	0.32	5.7	12
11	4.9	0.19	7.3	0.34	0.30	7.5	253	5.0	0.70	0.25	22	5.3
12	1.7	0.13	1180	0.13	19	1.6	68	1.3	0.55	0.27	3.6	31
13	1.3	0.38	402	0.53	27	0.18	11	343	0.22	0.43	1.0	5.0
14	1.3	1.3	76	0.95	50	0.07	5.8	12	0.16	0.95	0.80	0.55
15	1.5	1.8	9.7	0.55	3.3	5.7	5.5	3.2	158	0.98	0.29	0.78
16	2.3	1.8	3.1	0.27	0.76	452	2.3	1.6	53	0.89	0.12	0.60
17	3.5	1.9	1.9	1.8	174	22	1.6	0.65	38	4.8	0.19	0.37
18	3.0	2.1	1.3	1.6	119	7.7	1.2	0.33	24	3.8	0.42	0.28
19	16	93	0.89	0.40	28	577	0.40	0.54	36	0.63	2.8	e0.10
20	6.2	130	1.0	0.19	4.5	111	0.85	0.74	24	55	1.3	e0.05
21	1.4	9.3	0.95	0.11	2.1	20	0.34	1.0	11	9.5	0.99	e0.02
22	0.63	7.0	0.38	107	0.24	9.7	0.15	0.81	5.2	1.5	0.25	0.01
23	0.47	8.6	0.23	16	3.2	5.0	5.0	0.28	0.78	0.37	0.20	8.7
24	0.73	11	0.27	2.5	32	3.3	148	0.28	0.24	0.09	0.18	53
25	1.5	10	0.20	0.60	2.5	2.9	11	0.14	0.39	0.02	0.14	25
26	1.1	15	0.10	0.37	1230	3.5	3.3	0.16	129	0.02	0.72	6.6
27	1.4	9.1	0.10	0.24	159	1.2	1.6	14	182	0.02	1.9	0.44
28	3.7	6.7	0.12	6.8	17	0.70	3.9	15	12	0.02	1.5	0.05
29	7.5	7.3	0.09	19	5.4	0.92	1.6	1.8	18	337	0.22	0.07
30	13	4.0	0.06	8.9	---	15	0.88	0.58	3.2	183	0.04	0.03
31	14	---	0.08	1.2	---	4.7	---	0.29	---	7.5	0.02	---
TOTAL	456.93	453.47	2166.87	177.01	1878.44	1273.48	1579.42	971.40	716.39	610.16	609.67	163.42
MEAN	14.74	15.12	69.90	5.710	64.77	41.08	52.65	31.34	23.88	19.68	19.67	5.447
MAX	168	130	1180	107	1230	577	567	343	182	337	413	53
MIN	0.47	0.13	0.06	0.11	0.06	0.07	0.15	0.14	0.09	0.02	0.02	0.01
CFSM	0.48	0.50	2.29	0.19	2.12	1.35	1.73	1.03	0.78	0.65	0.64	0.18
IN.	0.56	0.55	2.64	0.22	2.29	1.55	1.93	1.18	0.87	0.74	0.74	0.20

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	33.48	47.60	51.53	40.15	55.32	151.4	73.81	39.08	45.43	34.88	27.16	33.53
MAX	69.4	158	73.0	70.0	87.6	357	131	67.3	99.2	56.5	79.4	123
(WY)	1997	1997	1997	1998	1997	1997	1999	1999	1996	1998	1998	1997
MIN	13.7	6.32	21.3	5.71	13.5	41.1	12.8	23.2	9.24	19.7	3.46	5.45
(WY)	1998	1998	1998	2000	1999	2000	1996	1998	1998	2000	1996	2000

SUMMARY STATISTICS

FOR 1999 CALENDAR YEAR

FOR 2000 WATER YEAR

WATER YEARS 1996 - 2000

ANNUAL TOTAL	16301.73	11056.66	
ANNUAL MEAN	44.66	30.21	51.61
HIGHEST ANNUAL MEAN			96.9
LOWEST ANNUAL MEAN			30.2
HIGHEST DAILY MEAN	1650	May 5	4500
LOWEST DAILY MEAN	0.00	May 20	0.00
ANNUAL SEVEN-DAY MINIMUM	0.02	May 24	0.02
MAXIMUM PEAK FLOW			9820
MAXIMUM PEAK STAGE			10.14
INSTANTANEOUS LOW FLOW			a0.00
ANNUAL RUNOFF (CFSM)	1.46	0.99	1.69
ANNUAL RUNOFF (INCHES)	19.88	13.49	22.99
10 PERCENT EXCEEDS	75	69	96
50 PERCENT EXCEEDS	4.8	1.6	4.0
90 PERCENT EXCEEDS	0.10	0.13	0.18

a Many days most years.

WOLF RIVER BASIN

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.0	0.10	1.2	0.35	1.9	2.8	35	0.60	76	1.6	5.1	287
2	0.0	0.10	0.80	0.37	1.0	1.9	4.7	0.39	12	0.94	3.2	28
3	0.0	0.13	0.64	0.44	0.73	9.7	7.4	0.30	456	0.81	2.3	7.3
4	0.0	31	0.69	0.44	0.61	257	4.4	0.33	43	0.58	41	4.5
5	0.0	8.7	0.63	0.46	0.50	22	2.7	0.49	11	3.0	4.5	3.5
6	110	220	0.36	0.69	0.47	5.7	1.8	0.37	440	4.6	2.3	227
7	3.1	23	0.33	0.67	0.42	3.2	1.4	34	85	1.6	56	50
8	0.64	175	0.50	0.50	0.44	2.2	1.0	9.8	15	1.0	17	29
9	0.20	49	0.60	0.35	46	1.5	0.99	1.9	5.3	0.88	17	6.4
10	0.09	3.6	0.54	0.22	17	1.3	0.76	1.2	2.8	9.5	21	3.0
11	0.09	0.83	0.32	47	2.5	1.0	6.1	10	1.8	5.1	26	1.8
12	0.09	0.41	0.22	16	31	167	457	19	1.3	1.6	121	0.88
13	0.10	8.4	193	2.4	641	13	655	1.7	1.5	0.90	37	1.0
14	0.10	1.7	33	37	562	3.6	23	0.78	2.6	0.72	6.2	1.2
15	0.10	0.50	118	4.8	556	166	69	0.54	2.9	0.60	3.2	1.2
16	0.10	116	424	1.4	1930	49	10	0.56	2.9	0.55	2.3	0.98
17	0.10	7.3	36	41	e68.0	6.2	3.5	0.81	1.2	195	1.6	0.77
18	0.10	1.7	5.2	349	e13.0	2.9	2.2	0.30	0.68	17	1.6	0.71
19	0.17	0.85	2.8	253	e4.0	1.9	1.5	0.29	0.45	93	1.2	580
20	0.21	0.50	1.4	21	e3.0	1.5	1.1	126	0.36	18	1.1	14
21	0.10	0.24	1.2	5.0	e2.0	1.4	0.84	1000	0.33	73	1.1	7.2
22	0.10	0.11	1.3	2.4	31	1.4	0.84	171	0.34	44	0.65	5.3
23	0.10	0.19	0.73	1.6	4.0	1.0	102	8.8	0.54	5.6	0.47	21
24	0.10	1010	0.75	1.1	254	0.86	30	3.8	0.51	2.8	2.5	25
25	0.10	125	0.57	0.67	339	0.64	2.1	2.0	0.37	2.1	3.7	3.1
26	0.10	8.0	1.6	0.61	17	1.3	1.0	1.2	0.33	1.8	1.1	2.1
27	0.10	2.8	9.1	0.97	5.7	0.73	0.76	0.78	0.46	1.1	0.59	1.7
28	0.10	1.5	2.3	0.54	3.9	0.89	0.65	60	59	0.79	0.36	1.6
29	0.10	1.8	0.99	265	---	34	0.31	9.2	72	0.83	0.18	1.4
30	0.10	1.2	0.56	37	---	112	0.29	34	3.9	155	0.15	1.1
31	0.10	---	0.42	4.6	---	54	---	1280	---	51	10	---
TOTAL	116.29	1799.66	839.75	1096.58	4536.17	927.62	1427.34	2780.14	1299.57	695.00	391.40	1317.74
MEAN	3.751	59.99	27.09	35.37	162.0	29.92	47.58	89.68	43.32	22.42	12.63	43.92
MAX	110	1010	424	349	1930	257	655	1280	456	195	121	580
MIN	0.00	0.10	0.22	0.22	0.42	0.64	0.29	0.29	0.33	0.55	0.15	0.71
CFSM	0.12	1.97	0.89	1.16	5.31	0.98	1.56	2.94	1.42	0.74	0.41	1.44
IN.	0.14	2.19	1.02	1.34	5.53	1.13	1.74	3.39	1.59	0.85	0.48	1.61

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.54	50.08	46.64	39.19	76.51	127.1	69.44	47.52	45.08	32.80	24.74	35.26
MAX	69.4	158	73.0	70.0	162	357	131	89.7	99.2	56.5	79.4	123
(WY)	1997	1997	1997	1998	2001	1997	1999	2001	1996	1998	1998	1997
MIN	3.75	6.32	21.3	5.71	13.5	29.9	12.8	23.2	9.24	19.7	3.46	5.45
(WY)	2001	1998	1998	2000	1999	2001	1996	1998	1998	2000	1996	2000

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1996 - 2001

ANNUAL TOTAL	10735.09	17227.26	
ANNUAL MEAN	29.33	47.20	50.81
HIGHEST ANNUAL MEAN			96.9
LOWEST ANNUAL MEAN			30.2
HIGHEST DAILY MEAN	1230	Feb 26	4500
LOWEST DAILY MEAN	0.00	Oct 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.01	Sep 29	0.01
MAXIMUM PEAK FLOW			4110
MAXIMUM PEAK STAGE			10.80
INSTANTANEOUS LOW FLOW			a0.00
ANNUAL RUNOFF (CFSM)	0.96		1.55
ANNUAL RUNOFF (INCHES)	13.09		21.01
10 PERCENT EXCEEDS	66		105
50 PERCENT EXCEEDS	0.93		1.8
90 PERCENT EXCEEDS	0.10		0.22

a Many days most years.

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.98	1.6	e60	3.5	106	2.1	21	20	3.8	8.8	6.0	2.0
2	0.87	1.5	e20	3.5	10	3.9	8.6	5.8	3.2	129	4.7	1.8
3	0.79	1.5	e15	3.5	7.5	5.2	6.5	176	3.2	178	5.7	1.4
4	0.72	1.4	e8.0	3.5	6.7	2.7	4.7	66	4.3	8.4	6.7	1.2
5	77	1.3	e7.0	3.8	4.8	2.4	4.1	7.2	4.8	5.7	7.2	0.95
6	18	1.2	e6.0	106	26	2.2	3.7	4.5	8.2	4.7	51	0.82
7	3.3	1.2	e55	11	64	2.9	3.6	3.5	5.9	4.4	19	2.0
8	2.2	1.2	e170	6.6	15	4.8	17	3.2	4.9	4.5	4.5	1.9
9	1.4	1.3	e28	5.3	6.3	32	9.2	8.6	5.1	22	7.0	1.5
10	30	1.5	e14	4.9	4.4	4.1	4.3	29	59	7.4	7.9	1.2
11	2070	1.5	e10	5.6	3.2	322	3.8	6.1	20	4.3	3.5	0.95
12	79	1.5	2490	4.5	2.6	963	3.5	3.1	6.7	7.4	3.2	1.0
13	696	2.3	2030	4.0	2.6	16	3.2	91	411	7.3	4.0	0.99
14	298	2.6	1580	4.3	3.0	7.6	3.0	8.2	28	40	65	0.87
15	8.0	2.3	391	3.6	2.7	5.6	3.0	4.3	7.4	12	45	0.90
16	3.7	2.1	1360	3.4	5.0	106	3.1	3.4	5.5	6.6	532	1.8
17	3.2	1.9	2510	8.4	2.9	5040	3.0	153	5.8	6.1	17	7.2
18	2.0	1.7	e200	21	2.5	e300	2.7	11	6.0	7.3	7.5	1.2
19	1.4	12	e40	167	152	e130	2.7	4.5	5.6	85	6.9	531
20	1.1	3.6	e16	10	123	882	2.7	3.4	5.3	87	89	2140
21	1.3	1.6	e10	7.1	6.6	69	2.9	3.1	5.6	48	17	44
22	1.3	1.2	358	9.1	4.6	18	28	3.4	5.3	6.6	8.8	8.7
23	1.3	0.95	590	19	3.7	14	3.6	6.8	4.6	4.2	8.3	5.4
24	22	258	11	1340	3.2	13	2.8	7.2	4.9	6.7	70	4.0
25	9.8	5.1	8.1	27	3.1	11	2.7	75	5.4	3.7	46	3.9
26	2.0	126	6.5	15	3.5	89	2.7	24	13	3.1	7.0	1440
27	1.2	543	5.9	73	3.2	17	2.8	4.6	216	3.2	4.7	678
28	0.93	3370	5.0	9.3	2.2	13	2.8	183	45	3.4	5.0	e130
29	0.82	5950	4.4	7.7	---	41	2.7	61	9.3	2.9	3.1	e15
30	1.3	e400	3.9	7.5	---	352	549	12	9.7	3.1	2.2	e2.5
31	1.5	---	3.6	174	---	638	---	5.0	---	47	2.4	---
TOTAL	3341.11	10701.05	12016.4	2072.1	580.3	9109.5	713.4	996.9	922.5	767.8	1067.3	5032.18
MEAN	107.8	356.7	387.6	66.84	20.73	293.9	23.78	32.16	30.75	24.77	34.43	167.7
MAX	2070	5950	2510	1340	152	5040	549	183	411	178	532	2140
MIN	0.72	0.95	3.6	3.4	2.2	2.1	2.7	3.1	3.2	2.9	2.2	0.82
CFSM	3.53	11.7	12.7	2.19	0.68	9.63	0.78	1.05	1.01	0.81	1.13	5.50
IN.	4.08	13.05	14.66	2.53	0.71	11.11	0.87	1.22	1.13	0.94	1.30	6.14

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	40.91	101.2	103.5	43.80	67.26	154.9	62.92	45.32	43.03	31.66	26.12	54.19
MAX	108	357	388	70.0	162	357	131	89.7	99.2	56.5	79.4	168
(WY)	2002	2002	2002	1998	2001	1997	1999	2001	1996	1998	1998	2002
MIN	3.75	6.32	21.3	5.71	13.5	29.9	12.8	23.2	9.24	19.7	3.46	5.45
(WY)	2001	1998	1998	2000	1999	2001	1996	1998	1998	2000	1996	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1996 - 2002

ANNUAL TOTAL	40530.12	47320.54	
ANNUAL MEAN	111.0	129.6	62.93
HIGHEST ANNUAL MEAN			130
LOWEST ANNUAL MEAN			30.2
HIGHEST DAILY MEAN	5950	Nov 29	5950
LOWEST DAILY MEAN	0.15	Aug 30	0.00
ANNUAL SEVEN-DAY MINIMUM	0.39	Apr 29	0.01
MAXIMUM PEAK FLOW			12500
MAXIMUM PEAK STAGE			18.99
INSTANTANEOUS LOW FLOW			0.64
ANNUAL RUNOFF (CFSM)	3.64		4.25
ANNUAL RUNOFF (INCHES)	49.43		57.72
10 PERCENT EXCEEDS	197		175
50 PERCENT EXCEEDS	2.9		5.8
90 PERCENT EXCEEDS	0.55		1.5

a Many days most years.

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1996 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD (STAND- ARD	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BICAR- BONATE WATER DIS IT FIELD MG/L AS	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	
		(US/CM) (00095)	(UNITS) (00400)	(00010)	(HG) (00025)	(00300)	(00301)	HCO3 (00453)	CACO3 (39086)	(00945)	(00940)	(00618)	(00613)	
NOV 13...	1800	114	6.9	11.0	763	8.9	81	55	45	5.5	4.36	--	<.008	
DEC 05...	1230	197	7.5	11.0	758	7.6	69	78	64	24.1	6.19	--	E.007	
JAN 09...	0730	103	--	3.5	760	11.2	85	32	26	9.1	3.85	.74	.014	
FEB 04...	1700	118	--	8.5	767	11.0	93	51	42	8.7	3.41	.52	.010	
MAR 12...	1015	52	7.4	7.5	759	10.6	89	19	16	3.7	1.68	.51	.008	
APR 24...	1500	180	7.4	22.5	764	3.0	35	74	61	10.8	9.44	.20	.053	
MAY 08...	1430	119	7.1	23.5	758	6.9	82	50	41	6.4	3.57	.66	.062	
JUN 11...	1530	108	6.5	26.5	763	3.1	39	42	34	5.7	4.73	.55	.050	
JUL 15...	1730	95	6.4	27.5	763	4.0	51	43	35	5.2	3.00	.42	.031	
AUG 08...	0730	112	6.5	26.5	769	1.3	16	40	32	7.7	3.71	.65	.063	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)
NOV 13...	<.05	<.04	.52	--	.114	.03	<.002	<.004	<.051	<.005	<.002	<.005	<.018	
DEC 05...	.30	.11	.80	1.1	.20	.03	<.002	<.004	.077	<.005	<.002	<.005	<.018	
JAN 09...	.76	.13	1.0	1.8	.38	.21	<.004	<.006	.233	<.005	<.002	.009	<.018	
FEB 04...	.53	E.02	1.0	1.5	.28	.08	<.004	<.006	2.94	<.005	<.002	<.005	<.018	
MAR 12...	.52	.08	1.5	2.0	.41	.16	<.004	<.006	4.24	<.005	<.002	<.005	<.018	
APR 24...	.26	.21	1.4	1.6	.185	.08	<.004	<.010	1.37	<.005	<.002	.017	<.018	
MAY 08...	.72	.05	1.0	1.7	.26	.10	<.004	<.006	.558	<.005	<.002	<.005	<.018	
JUN 11...	.60	.23	1.8	2.4	.34	.13	<.004	<.006	.158	<.005	<.002	<.005	<.018	
JUL 15...	.45	.09	1.0	1.5	.24	.10	<.004	<.006	.158	<.005	<.002	<.005	<.018	
AUG 08...	.71	.40	1.5	2.2	.26	.10	<.004	<.006	.060	<.005	<.002	.007	<.018	

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DEETHYL- ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN, DIS- SOLVED (UG/L) (39381)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
NOV 13...	E.009	.051	<.005	<.003	<.004	.054	<.006	E.012	<.003	<.007	<.010	.02	6.17
DEC 05...	E.022	.033	<.005	<.003	<.004	<.027	<.006	E.010	<.003	<.007	<.010	E.01	12.4
JAN 09...	<.006	.024	<.005	<.003	<.004	<.027	<.006	E.005	<.003	<.010	<.010	<.01	3.80
FEB 04...	E.089	.008	<.005	<.003	<.004	<.027	<.006	.016	<.003	<.010	<.010	E.01	4.17
MAR 12...	E.148	<.005	<.005	<.003	<.004	<.027	<.006	E.010	<.003	<.010	<.010	.03	8.91
APR 24...	E.062	.481	<.005	<.003	<.004	.359	<.006	.079	<.003	<.010	<.010	.82	2.91
MAY 08...	E.125	.126	<.005	<.003	.005	E.008	<.006	.035	<.003	<.010	<.010	.04	2.12
JUN 11...	E.029	.238	<.005	<.003	<.004	.055	.056	.366	<.003	<.010	<.010	.04	.738
JUL 15...	E.025	<.005	<.005	<.003	<.004	.031	.023	.028	<.003	<.010	<.010	.06	.234
AUG 08...	E.007	.077	<.005	<.003	<.004	1.75	.039	.026	<.003	<.010	<.010	.06	.156
Date	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
NOV 13...	<.010	<.041	<.020	<.003	<.002	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
DEC 05...	<.010	<.041	<.020	<.003	<.002	<.02	<.009	<.005	<.045	<.035	<.050	<.006	<.002
JAN 09...	<.010	E.013	<.020	<.003	<.006	<.02	<.009	<.005	<.013	<.035	<.050	<.006	<.002
FEB 04...	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
MAR 12...	<.010	E.062	<.020	<.003	<.006	<.02	<.009	<.005	.057	<.035	<.050	<.006	<.002
APR 24...	<.010	E.109	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
MAY 08...	<.010	E.060	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
JUN 11...	<.010	E.144	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
JUL 15...	<.010	E.085	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002
AUG 08...	<.010	E.088	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035	<.050	<.006	<.002

07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS, TN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)
NOV 13...	<.007	<.002	<.010	<.006	<.011	<.022	<.011	<.02	E.01	<.034	<.02	<.002	<.009
DEC 05...	<.007	<.002	<.010	<.006	<.011	.487	<.011	<.02	E.01	<.034	<.02	<.002	E.001
JAN 09...	<.007	--	<.022	<.006	<.011	.310	<.011	<.02	<.02	<.034	<.02	<.002	<.009
FEB 04...	<.007	<.004	<.022	<.006	<.011	.175	<.011	<.02	M	<.034	<.02	<.002	<.009
MAR 12...	<.007	<.004	<.022	<.006	<.011	.032	<.011	<.02	.05	<.034	<.02	<.002	<.009
APR 24...	<.007	<.004	.360	<.006	<.011	.040	<.011	<.02	.02	<.034	<.02	<.002	<.009
MAY 08...	<.007	<.004	<.022	<.006	<.011	.036	<.011	<.02	E.06	<.034	<.02	<.002	<.009
JUN 11...	<.007	<.004	<.022	<.006	<.011	<.004	.019	<.02	<.02	<.034	<.02	<.002	E.003
JUL 15...	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	<.02	<.034	<.02	<.002	<.009
AUG 08...	<.007	<.004	<.022	<.006	<.011	<.004	<.011	<.02	.06	<.034	<.02	<.002	<.009
							THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)						
Date													
NOV 13...							<.005						
DEC 05...							<.005						
JAN 09...							<.005						
FEB 04...							<.005						
MAR 12...							.006						
APR 24...							<.005						
MAY 08...							<.005						
JUN 11...							<.005						
JUL 15...							<.005						
AUG 08...							<.005						

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WOLF RIVER BASIN

07031740 WOLF RIVER AT HOLLYWOOD STREET AT MEMPHIS, TN

LOCATION.--Lat 35°11'16", long 89°58'32", Shelby County, Hydrologic Unit 08010210, at bridge on Hollywood Street, 0.2 mi south of Interstate 240, 6.1 mi upstream of Mississippi River, and at mile 5.2.

DRAINAGE AREA.--788 mi².

PERIOD OF RECORD.--October 2000 to current year. October 1985 to May 1989, continuous stage only, February 1995 to September 2000, unpublished stage and discharge.

GAGE.--Water-stage recorder. Datum of gage is 191.2 ft above NGVD of 1929 from reference mark provided by the City of Memphis.

REMARKS.--Records poor. During medium to high stages on the Mississippi River the stages are affected by backwater. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,600 ft³/s, Dec. 1, gage height, 35.44 ft; minimum daily discharge, under conditions of no backwater, 249 ft³/s, Oct. 4, minimum daily discharge 190 ft³/s, backwater from Mississippi River, May 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	316	e27000	626	e2500	820	e6300	e1400	e270	e360	623	548
2	259	311	e22000	557	1400	798	e6300	e1100	e270	e500	503	512
3	254	310	e10500	504	1250	773	e5500	e1700	e260	e1380	398	492
4	249	301	e7500	469	1220	728	e4200	e2500	e250	e650	361	480
5	344	299	e3900	442	1200	683	e2700	e2400	e230	e400	351	465
6	558	295	e2800	1010	1210	655	e2800	e2100	e230	e350	513	453
7	289	295	e2350	814	1380	638	e1200	e1850	e220	e340	1200	446
8	275	291	e2550	702	3400	622	e1100	e1700	e215	e320	510	438
9	267	288	e2800	609	2340	787	e980	e1470	e200	e310	493	e420
10	261	286	e2900	580	1360	753	e910	e1280	e200	e330	526	e400
11	6230	282	e2800	573	1160	995	e860	e1140	424	e380	327	e390
12	4390	280	e4000	538	1020	7500	e750	e1050	316	e420	306	e375
13	4640	279	e7900	497	930	4950	e650	e930	1000	e470	311	e370
14	5620	275	e8000	462	853	5130	593	e870	2380	e680	546	e360
15	3060	274	e7800	440	798	4510	543	e590	795	e550	1590	e360
16	2900	273	e7100	416	775	4380	503	e430	648	e530	3680	e450
17	2560	271	e8300	412	734	14000	474	e1510	526	e520	2390	e700
18	2150	272	e5600	507	704	17000	448	e1550	475	e520	1390	e1090
19	1560	311	e4400	1140	813	8630	436	e800	459	e600	933	e920
20	1020	331	e3700	1240	2120	8450	415	e380	431	e510	880	e3800
21	768	281	e3200	1340	1980	6930	396	e240	383	e470	802	e3400
22	608	278	e3100	1270	1760	6130	541	e220	351	e440	915	e3700
23	516	278	e6800	1290	1510	e4600	411	e210	327	e450	739	e1800
24	499	2010	e5800	e5000	1370	e3200	e300	e200	320	e590	692	e1000
25	641	875	e4700	e5400	1280	e2400	e290	e200	335	e480	1750	e920
26	415	522	e3600	e7300	1070	e1800	e280	e190	337	466	1590	e4000
27	380	2320	e3100	e8600	978	e1700	e270	e200	437	484	1050	e8200
28	355	e4000	e2300	e5500	892	e1550	e260	e360	e500	511	715	e12800
29	337	e16000	1350	e3600	---	e1600	e600	e560	e400	497	646	e11000
30	329	e20000	959	e2350	---	e2600	e1400	e310	e360	486	618	e8000
31	321	---	734	e2100	---	e6400	---	e270	---	854	592	---
TOTAL	42319	52404	179543	56288	38007	121712	42410	29710	13549	15848	27940	68289
MEAN	1365	1747	5792	1816	1357	3926	1414	958.4	451.6	511.2	901.3	2276
MAX	6230	20000	27000	8600	3400	17000	6300	2500	2380	1380	3680	12800
MIN	249	271	734	412	704	622	260	190	200	310	306	360
CFSM	1.73	2.22	7.35	2.30	1.72	4.98	1.79	1.22	0.57	0.65	1.14	2.89
IN.	2.00	2.47	8.48	2.66	1.79	5.75	2.00	1.40	0.64	0.75	1.32	3.22

e Estimated

07031740 WOLF RIVER AT HOLLYWOOD STREET AT MEMPHIS, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2002, BY WATER YEAR (WY)

MEAN	723.8	890.6	1715	1486	1811	2450	1286	1135	812.7	630.2	728.8	800.5
MAX	1449	1755	5792	2375	3706	4847	1994	2142	2211	858	1468	2276
(WY)	1997	1997	2002	1999	2001	1997	1999	1999	1997	1997	1998	2002
MIN	248	348	573	452	554	1038	733	589	357	391	334	268
(WY)	2001	2000	2001	2000	1995	2001	1995	2000	1995	2001	2000	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

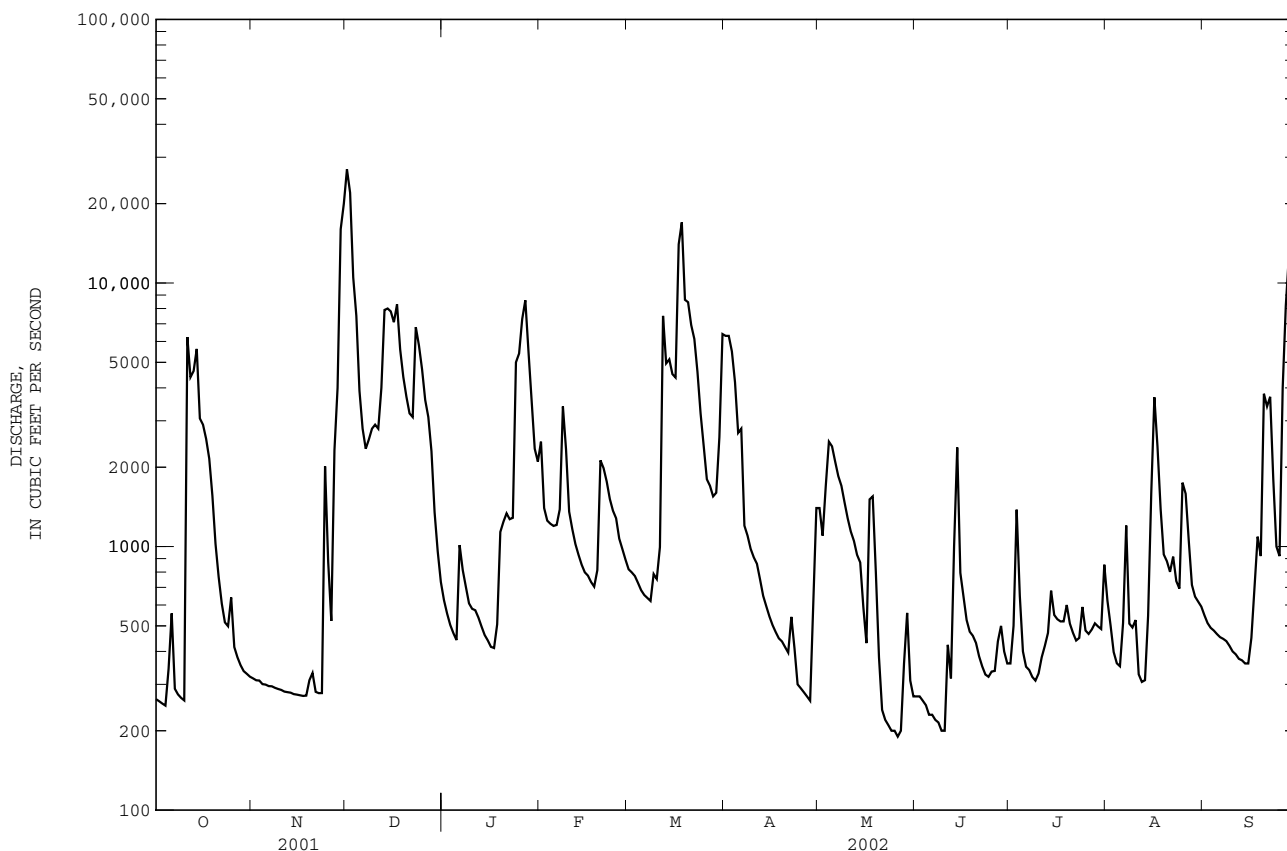
FOR 2002 WATER YEAR

WATER YEARS 1995 - 2002

ANNUAL TOTAL	541777	688019		
ANNUAL MEAN	1484	1885		
HIGHEST ANNUAL MEAN			1200	
LOWEST ANNUAL MEAN			1885	2002
HIGHEST DAILY MEAN	27000	Dec 1	27000	Dec 1
LOWEST DAILY MEAN	220	Aug 29	190	May 26
ANNUAL SEVEN-DAY MINIMUM	234	Aug 24	209	May 21
MAXIMUM PEAK FLOW			35600	Dec 1
MAXIMUM PEAK STAGE			b35.44	Dec 1
ANNUAL RUNOFF (CFSM)	1.88		2.39	
ANNUAL RUNOFF (INCHES)	25.58		32.48	
10 PERCENT EXCEEDS	3640		5050	2700
50 PERCENT EXCEEDS	492		692	596
90 PERCENT EXCEEDS	275		280	306

a Occurred during period of estimated record.

b Peak stage determined from high water mark.



NONCONNAH CREEK BASIN

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN

LOCATION.--Lat 35°02'59", long 89°49'08", Shelby County, Hydrologic Unit 08010211, on right bank, 100 ft upstream from bridge on Winchester Road, 2.6 mi south of Germantown, and at mile 17.3.

DRAINAGE AREA.--68.2 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, 1959-1964 and 1969; October 1969 to May 1985, October 1985 to January 1995, June 1996 to current year.

REVISED RECORDS.--WRD TN-74-1: Drainage area, WRD TN-87-1 (P).

GAGE.--Water-stage recorder. Datum of gage is 262.92 ft above NGVD of 1929, (from levels by National Resources Conservation Service).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Periodic observations of water temperature and specific conductance are published in this report as miscellaneous water-quality data.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 11	1545	5,790	16.04	Mar 12	0530	5,400	15.64
Nov 29	0145	*10,700	*20.70	Mar 17	0245	4,500	14.68
Dec 14	0015	4,220	14.37	Mar 31	0630	3,750	13.82
Dec 23	0230	6,710	16.97	Sep 26	2215	8,010	18.30
Jan 25	unknown	5,120	15.35				

Minimum discharge, 0.03 ft³/s, Oct. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	e0.58	136	6.9	e190	6.9	331	120	7.2	4.7	61	2.5
2	1.6	e0.48	49	6.3	e60	5.8	102	18	5.7	10	16	2.4
3	1.3	e0.45	24	5.9	e25	5.5	53	569	3.5	26	3.7	1.3
4	2.2	e0.40	18	5.4	e10	3.4	20	762	1.9	5.6	1.7	0.85
5	46	e0.35	12	6.9	e10	2.9	13	101	4.9	2.6	1.2	1.1
6	32	e0.32	11	369	e50	2.8	8.7	28	9.8	1.6	44	0.77
7	2.3	e0.32	51	120	e160	2.9	6.2	12	5.7	0.98	30	1.00
8	0.58	e0.36	411	45	e68	2.9	48	6.4	2.4	1.1	2.6	1.6
9	0.22	e0.38	118	23	e35	132	42	17	1.5	8.7	1.0	1.6
10	25	e0.40	35	15	e22	37	14	60	20	84	1.8	1.4
11	2850	e0.42	18	12	e13	449	8.3	25	19	20	1.1	1.4
12	473	e0.42	1770	8.1	e10	2850	6.8	17	3.3	396	1.2	1.7
13	1700	e0.42	2290	6.8	e8.5	362	4.5	180	385	41	17	1.1
14	596	e0.41	1640	5.7	8.4	93	4.1	38	76	7.8	628	0.72
15	71	0.45	210	5.0	9.2	96	3.5	11	8.9	2.4	207	5.6
16	14	0.59	927	4.6	13	860	3.1	5.3	3.0	1.5	1120	10
17	5.6	1.9	2020	5.0	7.1	2660	5.5	591	1.7	1.2	124	19
18	4.9	1.7	332	e12	6.7	1670	3.9	199	1.7	22	72	3.2
19	3.0	9.3	95	e60	157	314	4.0	35	1.6	95	17	83
20	1.1	4.9	43	e450	845	1630	4.1	12	1.1	20	6.8	1550
21	0.88	3.9	26	e170	134	294	7.7	6.1	1.0	3.8	4.2	329
22	0.52	1.9	772	e23	45	76	64	4.1	0.99	1.5	5.6	29
23	0.52	1.5	2720	e16	21	33	4.3	3.1	1.2	1.2	3.7	5.3
24	54	978	244	e75	14	19	16	3.4	2.3	2.8	233	2.0
25	47	34	76	e2300	11	12	27	2.8	14	7.7	212	1.5
26	1.5	133	40	e720	20	478	4.5	37	2.6	21	16	2360
27	0.28	1150	25	e140	15	101	3.5	12	73	11	6.1	2290
28	e0.27	2110	17	e260	8.3	31	2.0	62	8.2	1.0	3.5	201
29	e0.24	6990	13	e100	---	18	1.3	439	3.1	0.74	2.7	27
30	e0.50	1120	11	e50	---	754	407	90	3.0	43	1.7	11
31	e0.60	---	8.5	e50	---	2220	---	14	---	460	2.0	---
TOTAL	5938.01	12546.85	14162.5	5076.6	1976.2	15222.1	1223.0	3480.2	673.29	1305.92	2847.6	6946.04
MEAN	191.5	418.2	456.9	163.8	70.58	491.0	40.77	112.3	22.44	42.13	91.86	231.5
MAX	2850	6990	2720	2300	845	2850	407	762	385	460	1120	2360
MIN	0.22	0.32	8.5	4.6	6.7	2.8	1.3	2.8	0.99	0.74	1.0	0.72
CFSM	2.81	6.13	6.70	2.40	1.03	7.20	0.60	1.65	0.33	0.62	1.35	3.39
IN.	3.24	6.84	7.73	2.77	1.08	8.30	0.67	1.90	0.37	0.71	1.55	3.79

e Estimated

07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.51	103.0	173.7	155.6	188.0	210.3	179.6	109.5	61.66	43.04	19.22	30.11
MAX	192	418	616	531	604	659	834	407	300	354	91.9	232
(WY)	2002	2002	1983	1974	1989	1980	1991	1979	1974	1989	2002	2002
MIN	0.000	0.21	2.25	0.41	14.6	15.2	9.44	3.74	3.09	0.70	0.37	0.087
(WY)	1970	1972	1977	1986	1978	1986	1978	1988	1988	1976	1980	1984

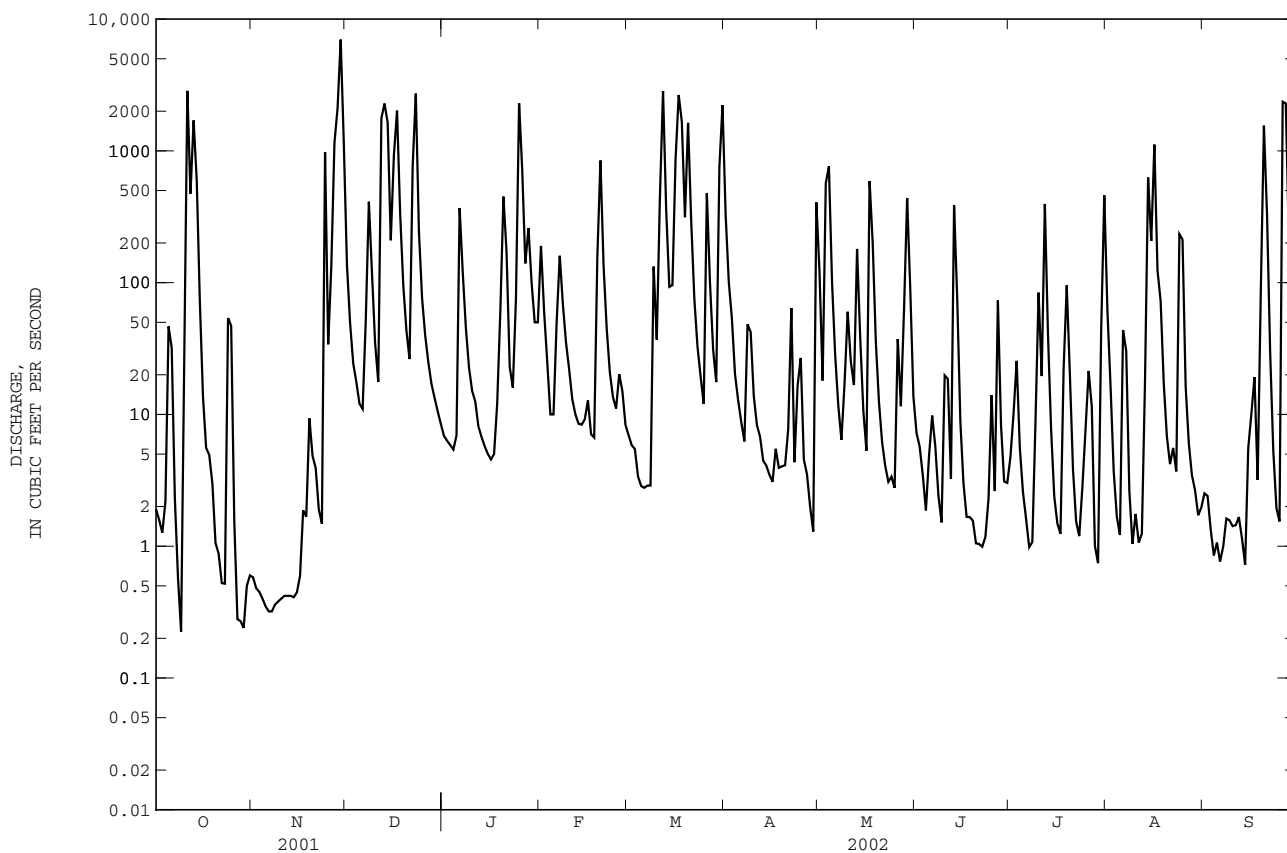
SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1970 - 2002

ANNUAL TOTAL	57051.15		71398.31		107.3			
ANNUAL MEAN	156.3		195.6		215		1979	
HIGHEST ANNUAL MEAN					22.4		1986	
LOWEST ANNUAL MEAN					6990		Nov 29 2001	
HIGHEST DAILY MEAN	6990		Nov 29		6990		Nov 29 2001	
LOWEST DAILY MEAN	0.22		Oct 9		0.00		Oct 1 1969	
ANNUAL SEVEN-DAY MINIMUM	0.36		Nov 4		0.00		Oct 1 1969	
MAXIMUM PEAK FLOW					10700		Nov 29	
MAXIMUM PEAK STAGE					20.70		Nov 29	
INSTANTANEOUS LOW FLOW					0.03		Oct 28	
ANNUAL RUNOFF (CFSM)	2.29				2.87		1.57	
ANNUAL RUNOFF (INCHES)	31.12				38.94		21.37	
10 PERCENT EXCEEDS	288				454		198	
50 PERCENT EXCEEDS	6.8				11		5.4	
90 PERCENT EXCEEDS	0.61				1.1		0.17	



As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for hydrologic studies reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from current meter or indirect measurements of peak flow. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN								
Whiteoak Creek at Sunbright, TN (03409000)	Lat 36°14'38", long 84°40'14", Morgan County, Hydrologic Unit 05130104, at bridge on U.S. Highway 27 in Sunbright. Datum of gage is 1,294.05 ft above NGVD of 1929. Drainage area is 13.5 mi ² .	1934, 1955-82, 1985-99 2000-02	3-18-02	9.23	-	5-27-73	17.24a	5,560
Wolf River near Byrdstown, TN (03416000)	Lat 36°33'37", long 85°04'23", Pickett County, Hydrologic Unit 05130105, on right bank 0.3 mi upstream from bridge on county road, 0.5 mi upstream from Widow Creek, 3.2 mi east of Byrdstown, 5.4 mi upstream from Lick Creek, and at mi 26.2. Datum of gage is 707.54 ft, Sandy Hook Datum. Drainage area is 106 mi ² .	1942-91†, 1992-99 2000-02	3-18-02	10.30	10,700	9- 2-82	17.14	23,500
Doe Creek at Gainesboro, TN (03418201)	Lat 36°21'23", long 85°39'20", Jackson County, Hydrologic Unit 05130106, at bridge on Highway 56, at Gainesboro. Datum of gage is 519.37 ft aboveNGVD of 1929. Drainage area is 5.72 mi ² .	1978-99 2000-02	3-17-02	3.96	-	8-31-82	7.28	-
Cane Creek near Spencer, TN (03419200)	Lat 35°44'36", long 85°23'33", Van Buren County, Hydrologic Unit 05130108, at bridge on State Highway 30, 4.0 mi east of Spencer. Drainage area is 134 mi ² .	1997-99 2000-02	1-23-02	13.10	-	1-23-02	13.10	-

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN--Continued								
Charles Creek near McMinn- ville, TN (03421200)	Lat 35°43'00", long 85°46'05", Warren County, Hydrologic Unit 05130107, at bridge on county road at Faulkner Springs, 2.7 mi north of McMinnville. Drainage area is 31.1 mi ² .	1955-99 2000-02	1-23-02	11.70	6,200	6-22-89	17.03	24,800
Mulherrin Creek near Gordons- ville, TN (03424900)	Lat 36°11'28", long 85°57'11", Smith County, Hydrologic Unit 05130108, at bridge on State Highway 53, 1.3 mi upstream from mouth, 1.5 mi northwest of Gordonsville. Drainage area is 26.9 mi ² .	1982, 1986-99 2000-02	1-23-02	15.76	-	2-14-89	23.85	-
Peyton Creek near Monoville, TN (03425040)	Lat 36°18'37", long 85°59'21", Smith County, Hydrologic Unit 05130201, at county road bridge 1.3, mi north of Monoville. Drainage area is 40.0 mi ² .	1986-99 2000-02	3-17-02	16.98	-	3-17-02	16.98	-
Second Creek near Walnut Grove, TN (03425365)	Lat 36°24'01", long 86°12'48", Trousdale County, Hydrologic Unit 05130201, at culvert on State Highways 10 and 25, 2.6 mi west of Hartsville. Drainage area is 3.47 mi ² .	1986-99 2000-02	3-17-02	27.14	-	6-10-98	29.48	-
Station Camp Creek at Cottontown, TN (03425637)	Lat 36°27'06", long 86°32'16", Sumner County, Hydrologic Unit 05130201, at State Highway 25 bridge in Cottontown.	1995-99 2000-02	3-17-02	15.01	-	6- 9-98	16.74	-
East Fork Stones River at Wood- bury, TN (03426800)	Lat 35°49'41", long 86°04'36", Cannon County, Hydrologic Unit 05130203, at bridge on U.S. Highway 70S at Woodbury. Datum of gage is 676.23 ft above NGVD of 1929. Drainage area is 39.1 mi ² .	1962-89† 1990-99 2000-02	1-23-02	14.61	7,390	3-15-73	16.75	13,200
Brawleys Fork below Bradyville, TN (03426874)	Lat 35°44'44", long 86°10'14", Cannon County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 0.5 mi northwest of Bradyville. Drainage area is 15.4 mi ² .	1983-99 2000-02	1-23-02	27.56	2,750	10- 1-89	27.94	2,850
Reed Creek near Bradyville, TN (034269424)	Lat 35°44'44", long 86°12'31", Rutherford County, Hydrologic Unit 05130203, at bridge on Bradyville Pike, 2.4 mi northwest of Bradyville. Drainage area is 3.52 mi ² .	1983-99 2000-02	1-23-02	4.00	-	4-20-95	5.86	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN--Continued								
East Fork Stones River near Lascassas, TN (03427500)	Lat 35°55'06", long 86°20'02", Rutherford County, Hydrologic Unit 05130203, on left bank 50 ft upstream from highway bridge, 2.5 mi southwest of Lascassas, 3.7 mi downstream of Bradley Creek, 6.0 mi northeast of the courthouse in Murfreesboro, and at mi 15.4. Datum of gage is 507.88 ft, Sandy Hook Datum. Drainage area is 262 mi ² .	1950-58†, 1963-91†, 1992-99 2000-02	1-23-02	31.89	21,800	3-13-75	39.48	41,200
Bushman Creek at Pitts Lane Ford near Compton, TN (03427690)	Lat 35°53'08", long 86°20'47", Rutherford County, Hydrologic Unit 05130203, on right bank 75 ft upstream of bridge on De Jarnett Lane, 0.1 mi west of intersection of De Jarnett Lane and State Highway 96, 1.6 mi southwest of Compton. Datum of gage is 569.74 ft above NGVD of 1929. Drainage area is 9.67 mi ² .	1989-92†, 1993-99 2000-02	1-23-02	5.54	1,230	7-21-96	7.24	2,020
Lytle Creek at Sanbyrne Drive at Murfreesboro, TN (03428043)	Lat 35°49'38", long 86°23'28", Rutherford County, Hydrologic Unit 05130203, at bridge on Sanbyrne Drive, 1 mi south of intersection of Highways 41 and 231 in Murfreesboro. Datum of gage is 591.91 ft above NGVD of 1929. Drainage area is 17.6 mi ² .	1978-90, 1991-92†, 1993-99 2000-01 2002b	--	--	-	1-23-99	3.36	-
Unnamed Sink near Almaville, TN (03428270)	Lat 35°51'21", long 86°32'21", Rutherford Count, Hydrologic Unit 05130203, on left down- stream wingwall of culvert on Shored Road, 2.4 miles south- east of Almaville. Datum of gage is NGVD of 1929.	1994-99 2000-02	1-24-02	604.69	-	3-27-94	607.36	-
West Fork Stones River near Smyrna, TN (03428500)	Lat 35°56'25", long 86°27'54", Rutherford County, Hydrologic Unit 05130203, near left bank at county bridge on Sulphur Springs Road, 400 ft upstream from Nice's Mill dam, 1.6 mi downstream from Overall Creek, 4.2 mi southeast of Smyrna, and at mi 6.4. Datum of gage is 500 ft, above NGVD of 1929. Drainage area is 237 mi ² , includes 43 mi ² without surface drainage.	1965-91†, 1992-99 2000-02	1-24-02	16.12	22,100	3-13-75	19.18	63,800
Unnamed Sink on I-840 at Leanna, TN (03428513)	Lat 35°56'13", long 86°26'14", Rutherford County, Hydrologic Unit 05130203, 100 ft above culvert on I-840, 0.4 mile southwest of Leanna. Datum of gage is NGVD of 1929.	1994-99 2000-02	1-24-02	533.44	-	1-23-99	532.56	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN--Continued								
Unnamed Sink at Leanna, TN (03428515)	Lat 35°56'19", long 86°26'49", Rutherford County, Hydrologic Unit 05130203, 100 ft south of intersection of E. Buckeye Bottom Road and Sulphur Springs Road 0.9 mi west of Leanna. Datum of gage is NGVD of 1929.	1994-99 2000-02	--	<512.90	-	1- 23-99	515.41	-
McCrory Creek at Ironwood Drive at Donelson, TN (03430118)	Lat 36°09'07", long 86°39'02", Davidson County, Hydrologic Unit 05130203, at bridge under Ironwood Drive, 1.3 mi southeast of inter- section of U.S. Highway 70 (Lebanon Road) and Donelson Pike in Donelson. Datum of gage is 430.63 ft above NGVD of 1929. Drainage area is 7.31 mi ² .	1977-99c 2000-02	3-17-02	8.04	1,920	5- 6-84	9.87	2,850
Mill Creek at Nolensville, TN (03430400)	Lat 35°57'32", long 86°40'31", Williamson County, Hydrologic Unit 05130202, at bridge on Sunset Road, 0.6 mi north- west of Nolensville. Datum of gage is 586.18 ft above NGVD of 1929. Drainage area is 12.0 mi ² .	1965-99 2000-02	1-24-02	6.50	3,210	5- 7-84	9.82	11,400
Mill Creek near Antioch, TN (03431000)	Lat 36°04'54", long 86°40'50", Davidson County, Hydrologic Unit 05130202, at bridge on Franklin-Limestone Road, 1.6 miles north of Antioch, Datum of gage is 472.93 ft above NGVD of 1929. Drainage area is 64.0 mi ² .	1954-61†, 1962-63, 1964-75†, 1976-92, 1993-96† 1997-99 2000-02	1-24-02	12.91	5,070	5- 4-79	23.78	30,100
Sevenmile Creek at Blackman Road, near Nashville, TN (03431040)	Lat 36°04'21", long 86°44'00", Davidson County, Hydrologic Unit 05130202, at bridge on Blackman Road, 7.0 mi southeast of State capitol in Nashville. Datum of gage is 499.08 ft above NGVD of 1929. Drainage area is 12.2 mi ² .	1965-99 2000-02	7-12-02	4.91	1,450	6- 4-98	10.57	10,500
Mill Creek trib- utary at Glen- rose Avenue, at Woodbine, TN (03431062)	Lat 36°07'02", long 86°43'37", Davidson County, Hydrologic Unit 05130202, at culvert under Glenrose Avenue, 1.1 mi northeast of intersection of Nolensville Road and Thompson Lane in Woodbine, and 750 ft upstream from mouth. Datum of gage is 443.52 ft above NGVD of 1929. Drainage area is 1.17 mi ² .	1977-99c 2000-02c	3-17-02	6.78	523	5- 6-84	9.12	833

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN--Continued								
West Fork Browns Creek at General Bates Drive, at Nashville, TN (03431120)	Lat 36°06'29", long 86°47'07", Davidson County, Hydrologic Unit 05130202, at bridge on General Bates Drive, 4.0 mi south of State capitol in Nashville. Datum of gage is 499.94 ft above NGVD of 1929. Drainage area is 3.30 mi ² .	1965-99 2000-02	3-17-02	6.48	1,710	3-29-75	7.00	2,110
East Fork Browns Creek at 100 Oaks Mall, at Nashville, TN (03431242)	Lat 36°06'36", long 86°46'03", Davidson County, Hydrologic Unit 05130202, at culvert on access road to CarMax, 300 ft west of 100-Oaks Shopping Center, and 4.0 mi southeast and of State capitol in Nashville. Datum of gage is 496.69 ft above NGVD of 1929. Drainage area is 1.58 mi ² .	2000-02	3-17-02	501.50	-	8- 3-01	501.80	-
Browns Creek at Factory Street, at Nashville, TN (03431340)	Lat 36°08'26", long 86°45'31", Davidson County, Hydrologic Unit 05130202, at bridge on Factory Street, 800 ft downstream from Louisville and Nashville Railroad bridge, and 2.3 mi southeast of State capitol in Nashville. Datum of gage is 420.66 ft above NGVD of 1929. Drainage area is 13.2 mi ² .	1965-99 2000-02	3-17-02	7.75	2,470	9-13-79	10.89	7,800
Pages Branch at Avondale, TN (03431490)	Lat 36°12'22", long 86°46'24", Davidson County, Hydrologic Unit 05130202, at culvert under Trinity Lane, 900 ft east of intersection of Interstate 65 and Trinity Lane at Avondale, 0.9 mi upstream from mouth. Drain- age area is 2.01 mi ² .	1977-99c 2000-02c	3-17-02	6.37	1,470	6- 5-98	6.32	1,430
Earthman Fork at Whites Creek, TN (03431550)	Lat 36°15'55", long 86°49'51", Davidson County, Hydrologic Unit 05130202, at bridge on Whites Creek Pike in town of Whites Creek, 1,800 ft upstream from mouth. Drain- age area is 6.29 mi ² .	1965-99 2000-02	3-17-02	8.06	1,740	5- 3-93	9.43	2,510
Ewing Creek below Knight Road, near Bordeaux, TN (03431581)	Lat 36°13'55", long 86°48'14", Davidson County, Hydrologic Unit 05130202, at downstream side of bridge on Knight Road, 3.0 mi northeast of Bordeaux. Datum of gage is NGVD of 1929. Drainage area is 13.3 mi ² .	1976-99 2000-02	7-12-02	448.85	-	6-9-86	449.80	-
Sugartree Creek at YMCA Access Road, at Green Hills, TN (03431677)	Lat 36°06'13", long 86°49'12", Davidson County, Hydrologic Unit 05130202, at bridge on YMCA Access Road, 0.5 mi southwest of Hillsboro High School, at Green Hills. Datum of gage is NGVD of 1929. Drainage area is 1.51 mi ² .	1976-99 2000-02	3-17-02	544.68	-	9-13-79	545.23	-

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
CUMBERLAND RIVER BASIN--Continued								
Sugartree Creek at Abbott Martin Road, at Green Hills, TN (03431679)	Lat 36°06'23", long 86°49'17", Davidson County, Hydrologic Unit 05130202, at bridge on Abbott Martin Road, at inter- section of Bedford Avenue and Abbott Martin Road, at Green Hills. Datum of gage is NGVD of 1929. Drainage area is 2.19 mi ² .	1976-99 2000-02	3-17-02	531.26	-	11-27-94	531.54	-
Sycamore Creek near Ashland City, TN (03431800)	Lat 36°19'12", long 87°03'04", Cheatham County, Hydrologic Unit 05130202, near right bank on downstream end of pier of bridge on State Highway 49, at Sycamore, 3.2 mi north of Ashland City, 4.4 mi upstream from Spring Creek, and at mi 8.6. Elevation of gage is 400 ft above NGVD of 1929, from topographic map. Drainage area is 97.2 mi ² .	1961-87†, 1988-91†, 1992-99 2000-02	1-24-02	11.89	10,500	2-21-89	13.50	18,500
Murfrees Fork above Burwood, TN (03432470)	Lat 35°48'58", long 86°57'20", Williamson County, Hydrologic Unit 05130204, at county road bridge, just downstream from Cayce Branch, 1.6 mi east of Burwood. Drainage area is 7.43 mi ² .	1986-99 2000-02	5-13-02	20.08	-	4-86	26.85	-
Little Harpeth River at Granny White Pike, at Brentwood, TN (03432925)	Lat 36°01'30", long 86°49'09", Williamson County, Hydrologic Unit 05130204, at bridge on Granny White Pike, 2.0 mi southwest of Brentwood. Datum of gage is 618.29 ft above NGVD of 1929. Drainage area is 22.0 mi ² .	1978-99 2000-02	1-24-02	9.84	1,660	5- 4-79	17.55	9,260
Jones Creek near Burns, TN (03434590)	Lat 36°06'15", long 87°19'05", Dickson County, Hydrologic Unit 05130204, at bridge on Rock Church Road, 3.5 mi north of Burns and at mi 21.9. Drainage area is 13.3 mi ² .	1984-99 2000-02	1-24-02	10.77	4,680	5- 6-84	9.87	3,750
Bartons Creek near Cumberland Furnace, TN (034350021)	Lat 36°15'02", long 87°20'00" Dickson County, Hydrologic Unit 05130205, at bridge on Stayton road, 1.9 mi south- east of Cumberland Furnace. Drainage area is 22.3 mi ² .	1984-99 2000-02	11-29-01	11.72	-	4-16-98	15.88	-
Louise Creek near Grays Chapel, TN (034350035)	Lat 36°21'52", long 87°20'30", Montgomery County, Hydrologic Unit 05130206, at bridge on old State Highway 48, 2.8 mi south of Liveryworth. Drainage area is 12.7 mi ² .	1995-99 2000-02	11-29-01	8.59	-	3- 3-97	10.96	-

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum			
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)	
CUMBERLAND RIVER BASIN--Continued									
Honey Run Creek near Cross Plains, TN (034351105)	Lat 36°31'52", long 87°40'10" Robertson County, Hydrologic Unit 05130206, at county road bridge, 1.2 mi north-northwest of Calistia. Drainage area is 17.0 mi ² .	1995-99 2000-02	3-17-02	13.78	-	6- 9-98	16.66	-	
Honey Run Creek below Cross Plains, TN (034351113)	Lat 36°32'31", long 86°42'14", Robertson County, Hydrologic Unit 05130206, at Empson Bridge on county road, 0.4 mi above mouth of Empson branch, 0.6 mi southwest of Cross Plains. Drainage area is 20.0 mi ² .	1986-99 2000-02	3-17-02	22.00	-	2- 3-90	23.11	-	
Beaver Dam Creek above Springfield (03435739)	Lat 36°31'40", long 86°49'29" Robertson County, Hydrologic Unit 05130206, at county road bridge, 3.6 miles north- east of Springfield, and at mile 1.6. Drainage area is 12.9 mi ² .	1995-99 2000-02	11-29-01	11.60	-	6- 9-98	15.17	-	
Sulphur Fork Red River above Springfield, TN (03435770)	Lat 36°30'47", long 86°51'44", Robertson County, Hydrologic Unit 05130206, on left bank 150 ft downstream from new bridge on State Highway 49, 1.2 mi downstream from Beaver Dam Creek, 1.3 mi northeast of Springfield. Datum of gage is 538.17 ft above NGVD of 1929. Drainage area is 65.6 mi ² .	1975-88†, 1988-99 2000-02	3-17-02	11.40	4,230	3- 3-97	14.52	12,100	
Spring Creek tributary near Cedar Hill, TN (03435930)	Lat 36°32'08", long 86°59'26", Robertson County, Hydrologic Unit 05130206, at culvert on Kinney Road, 1.2 mi southeast of Cedar Hill. Drainage area is 1.40 mi ² .	1986-99 2000-02	9-26-02	19.47	61.1	5-17-90	22.23	141	
Sulphur Fork Red River above Port Royal, TN (03436082)	Lat 36°32'23", long 87°06'51", Robertson County, Hydrologic Unit 05130206, at bridge on State Highway 76 1.7 miles southeast of Port Royal. Drainage area is 214 mi ² .	1995-99 2000-02	11-29-01	30.79	-	3- 3-97	42.06	-	
Passenger Creek near Sango, TN (03436130)	Lat 36°32'07", long 87°11'50" Montgomery County, Hydrologic Unit 05130206 at county road bridge 2.0 mi northeast of Sango. Datum of gage is NGVD of 1929. Drainage area is 20.5 mi ² .	1995-99 2000-02	-	<394.17	-	3- 3-97	405.76	-	
Cummings Creek near Dotson- ville, TN (03436505)	Lat 36°29'18", long 87°28'06", Montgomery County, Hydrologic Unit 05130205, at bridge on Dotsonville Road, 1.1 mi northeast of Dotsonville. Drainage area is 2.65 mi ² .	1984-99 2000-02	9-26-02	7.37	-	12-25-87	9.45	-	

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN								
Yellow Creek near Shiloh, TN (03436700)	Lat 36°20'55", long 87°32'20", Montgomery County, Hydrologic Unit 05130205, at bridge on State Highway 13, 2.6 mi west of Shiloh, 3.0 mi downstream from Leatherwood Creek, 9.0 mi east of Erin. Datum of gage is 390.13 ft above NGVD of 1929. Drainage area is 124 mi ² .	1957-80† 1982-98 2000b 2001-02	11-29-01	14.29	--	5- 6-84	17.75	16,200
Caney Creek near Cosby, TN (03461230)	Lat 35°47'03", long 83°12'11", Cocke County, Hydrologic Unit 06010106, at culvert under State Highway 32, 3.3 mi southeast of Cosby. Drainage area is 1.62 mi ² .	1967-99 2000-02	1-19-02	3.67	50	1-26-96	6.45	275
Cherokee Creek near Embree- ville, TN (03465607)	Lat 36°12'24", long 82°29'23", Washington County, Hydrologic Unit 06010108, at culvert on county road, 0.5 mi southeast of Mayday, 1.4 mi northwest of Kansas City, and at mi 1.3. Drainage area is 22.9 mi ² .	1984-99 2000-02	3-17-02	13.42	-	5- 7-84	18.37	-
Clear Fork near Fairview, TN (03465780)	Lat 36°19'33", long 82°33'47", Washington County, Hydrologic Unit 06010108, at culvert on State Highway 81, 2.0 mi southwest of Sulfur Springs, and at mi 3.8. Drainage area is 10.5 mi ² .	1983-99 2000-02	1-23-02	7.67	-	1-23-02	7.67	-
Lick Creek near Albany, TN (03466890)	Lat 36°14'54", long 82°55'34", Greene County, Hydrologic Unit 06010108, at State Highway 70 bridge, 0.3 mi downstream from Puncheon Camp Creek, 1.0 mi northwest of Albany, and at mi 33.7. Drainage area is 172 mi ² .	1984-99 2000-02	3-18-02	15.98	7,490	3-27-94	17.41	10,800
Bent Creek at Taylor Gap, TN (03467480)	Lat 36°14'08", long 83°06'41", Hamblen County, Hydrologic Unit 06010108, at bridge on county road (Mountain Valley Road), 2.1 mi southwest of Bulls Gap, 5.0 mi southeast of Russelville. Drainage area is 2.18 mi ² .	1986-99 2000-02	3-18-02	15.25	2,430	3-27-94	15.56	2,550
Carter Branch near White Pine, TN (03467992)	Lat 36°07'05", long 83°18'55", Jefferson County, Hydrologic Unit 06010108, at bridge on county road, 1.6 mi north- east of Kimbrough Crossroad, 1.8 mi northwest of White Pine. Drainage area is 4.25 mi ² .	1986-99 2000-02	3-18-02	7.87	-	4-29-97	9.14	-
Cedar Creek near Valley Home, TN (03467993)	Lat 36°08'03", long 83°18'47", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 1.7 mi southeast of Valley Home, 1.9 mi south- east of Witt, 2.2 mi northwest of White Pine. Drainage area is 2.01 mi ² .	1986-99 2000-02	3-18-02	12.66	153	4-29-97	13.38	210

See footnotes at the end of the table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued								
Sinking Fork at White Pine, TN (03467998)	Lat 36°07'21", long 83°17'44", Jefferson County, Hydrologic Unit 06010108, at culvert on county road, 0.9 mi north- west of White Pine, 2.7 mi northeast of Kimbrough Cross- road. Drainage area is 6.38 mi ² .	1986-99 2000-02	3-18-02	7.09	1,480	7-13-00	7.42	1,740
Dumplin Creek at Mt. Hareb, TN (03470215)	Lat 36°04'59", long 83°25'51", Jefferson County, Hydrologic Unit 06010107, at culvert on county road, 0.8 mi southeast of Mt. Hareb, 4.3 mi south- east of Jefferson City, 4.6 mi north of Dandridge. Drainage area is 3.65 mi ² .	1986-99 2000-02	3-18-02	11.11	250	3-18-02	11.11	250
Indian Creek at Childress, TN (03476960)	Lat 36°25'38", long 82°15'54", Sullivan County, Hydrologic Unit 06010102, at bridge on U.S. Highway 19, 3.3 mi south of Bluff City, and at mi 4.6. Drainage area is 6.79 mi ² .	1983-99 2000-02	3-17-02	8.65	-	5- 7-84	10.73	-
Reedy Creek at Orebank, TN (03487550)	Lat 36°33'42", long 82°27'36", Sullivan County, Hydrologic Unit 06010102, 80 ft upstream from culvert, 0.3 mi north of Orebank, 1.0 mi upstream from Gaines Branch, and at mi 9.8. Drainage area is 36.3 mi ² .	1963-89†, 1990-99 2000-02	3-18-02	9.46	1,580	10- 2-77	11.61	4,940d
Forgey Creek at Zion Hill, TN (03490522)	Lat 36°29'12", long 82°53'08", Hawkins County, Hydrologic Unit 06010104, at culvert on county road (Carter Valley Road), 0.9 mi north of Zion Hill, 7.8 mi northeast of Rogersville. Drainage area is 0.86 mi ² .	1986-99 2000-02	3-17-02	18.22	70	7-21-99	21.93	321
Robertson Creek near Persia, TN (03491540)	Lat 36°20'24", long 83°02'27", Hawkins County, Hydrologic Unit 06010104, at bridge on State Highway 113, 0.25 mi below Mooney Branch, and at mi 3.0. Drainage area is 14.6 mi ² .	1986-99 2000-02	3-18-02	12.00	985	8-13-93 3-27-94	12.50 12.50	1,120 1,120
Dry Land Creek tributary near New Market, TN (03494714)	Lat 36°03'33", long 83°34'13", Jefferson County, Hydrologic Unit 06010104, at culvert on county road (Rocky Valley Road), 3.0 mi south of New Market, 3.3 mi northwest of Piedmont. Drainage area is 0.20 mi ² .	1986-99 2000-02	3-17-02	11.84	50	4-17-98	13.22	82

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued								
Flat Creek at Luttrell, TN (03494990)	Lat 36°11'45", long 83°44'44", Union County, Hydrologic Unit 06010104, at bridge on State Highway 61, 0.3 mi southwest of Luttrell, 3.5 mi northwest of Blaine. Drainage area is 22.4 mi ² .	1986-99 2000-02	3-18-02	12.21	-	7-1-97	13.85	-
Little Ellejoy Creek at Prospect, TN (03498010)	Lat 35°48'23", long 83°47'57" Blount County, Hydrologic Unit 06010201, at bridge on county road, 0.4 mi south of Prospect, at mile 1.93. Drainage area is 5.48 mi.	1995-99 2000-02	3-17-02	6.55	-	5-19-95	6.98	-
Stock Creek at Pickins Gap Road near High Bluff, TN (034991105)	Lat 35°53'03", long 83°50'18" Knox County, Hydrologic Unit 06010201, at bridge on Pickins road, near High Bluff, TN.	2000-02c	3-17-02	9.32	-	7-29-01	9.53	-
Ten Mile Creek at Robinson Road near Knoxville, TN (03499175)	Lat 35°56'42", long 84°03'24" Knox County, Hydrologic Unit 06010201, at bridge on Robinson Creek road, near Cedar Bluff, TN.	2000-02c	3-17-02	7.68	-	3-17-02 9-22-02	7.68 7.68	-
Baker Creek tributary near Binfield, TN (03519610)	Lat 35°41'56", long 84°02'46", Blount County, Hydrologic Unit 06010204, at culvert under county road, 1.5 mi east of Binfield. Drainage area is 2.10 mi ² .	1966-77, 1979-99 2000-02	3-17-02	7.19	-	6-23-81	8.29	-
Big War Creek at Luther, TN (03527800)	Lat 36°27'18", long 83°14'29", Hancock County, Hydrologic Unit 06010205, at bridge on county road, 0.4 mi south of Luther 0.8 mi northwest of Yount Town, 6.0 mi southwest of Sneedville. Drainage area is 22.3 mi ² .	1986-99 2000-02	3-18-02	8.50	2,060	4-17-98	10.61	4,100
Crooked Creek near Maynard- ville, TN (03528390)	Lat 36°15'56", long 83°50'25", Union County, Hydrologic Unit 06010205, at culvert on State Highway 170, 2.5 mi northwest of Maynardville, 5.5 mi north- east of Paulette. Drainage area is 2.23 mi ² .	1986-99 2000-02	3-17-02	3.30	239	4-17-98	9.76	1,400
Coal Creek at Lake City, TN (03534000)	Lat 36°13'14", long 84°09'27" Anderson County, Hydrologic Unit 06010207, at bridge on U.S. Highway 25-W, at Lake City. Datum of gage is 842.76 ft above sea level. Drainage area is 24.5 mi ² .	1932-34†, 1955-99 2000-02	3-17-02	7.57	4,380	4-17-98	10.65	8,080
Willow Fork near Halls Cross- roads, TN (03535180)	Lat 36°05'59", long 83°54'27", Knox County, Hydrologic Unit 06010207, at culvert under Quarry Road, 1.7 mi northeast of Halls Crossroads. Datum of gage is 1,027.82 ft above NGVD of 1929. Drainage area is 3.23 mi ² .	1967-99 2000-02	3-18-02	6.82	437	4-17-98	8.40	990

See footnotes at the end of the table

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued								
Beaver Creek near Willow Fork at Halls Cross-roads, TN (035351830)	Lat 36°04'57", long 83°55'34", Knox County, Hydrologic Unit 06010207, at bridge on Old Andersonville Pike.	1998-99c 2000-02c	3-18-02	14.79	-	6-28-99	15.13	-
Beaver Creek at Brickyard Road near Powell, TN (03535195)	Lat 36°01'36", long 84°01'39", Knox County, Hydrologic Unit 06010207, at bridge on Brickyard Road, near Powell High School. Drainage area is 52.5 mi ² .	1998-99c 2000-02c	3-18-02	13.50	-	3-18-02	13.50	-
Conner Creek at Steele Road near Solway, TN (03535617)	Lat 35°56'05", long 84°11'18" Knox County, Hydrologic Unit 06010201, at bridge on Steele road near Solway	2000-02c	9-21-02	8.45	-	9-21-02	8.45	-
Coker Creek near Ironsburg, TN (03555900)	Lat 35°13'05", long 84°20'28", Monroe County, Hydrologic Unit 06020002, at bridge on State Highway 68, 4.2 mi southwest of Coker Creek. Drainage area is 22.4 mi ² .	1983-93e 1997-99 2000-02	1-23-02	10.54	-	4-17-98	13.38	-
Wolftever Creek near Ooltewah, TN (03566420)	Lat 35°03'43", long 85°03'59", Hamilton County, Hydrologic Unit 06020001, on right downstream wingwall of county road bridge, 0.6 mi downstream from Southern Railway bridge, 0.9 mi south of Ooltewah, 1.6 mi upstream from Little Wolftever Creek, and at mi 16.1. Drainage area is 18.8 mi ² .	1964-89†, 1992-99 2000-02	-	<5.17	<767	3-16-73	9.75	7,300
North Chickamauga Creek at Greens Mill, near Hixson, TN (03566599)	Lat 35°10'30", long 85°13'40", Hamilton County, Hydrologic Unit 06020001, at bridge on Boy Scout Road, 2.3 mi north of Hixson. Drainage area is 99.5 mi ² .	1925,1944, 1953-56, 1980-99 2000-02	1-23-02	30.23	-	10- 5-95	36.19	-
Stringers Branch at Leawood Drive, at Red Bank, TN (03569168)	Lat 35°07'00", long 85°17'28", Hamilton County, Hydrologic Unit 06020001, at bridge on Leawood Drive at Red Bank. Drainage area is 1.54 mi ² .	1980-99 2000-02	3-17-02	24.07	-	8-11-96	28.24	-
Little Sequatchie River at Sequatchie, TN (03571500)	Lat 35°07'47", long 85°35'10", Marion County, Hydrologic Unit 06020004, at Highway 27 bridge, 1.0 mi northeast of Sequatchie. Drainage area is 116 mi ² .	1925,1929, 1930, 1932-34†, 1944, 1951-54, 1965, 1979-99 2000-02	1-23-02	9.62	7,540	12-22-90	11.78	10,600

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued								
Standifer Branch at Jasper, TN (03571730)	Lat 35°04'22", long 85°36'56", Marion County, Hydrologic Unit 06020004, at bridge on U.S. Highways 41, 64, and 72, 0.6 mi east of courthouse, 0.8 mi above Town Creek, at Jasper. Drainage area is 15.3 mi ² .	1982-99 2000-02	1-23-02	15.22	-	12-22-90	19.59	-
Battle Creek near Mont- eagle, TN (03571800)	Lat 35°08'03", long 85°46'15", Marion County, Hydrologic Unit 06030001, at bridge on former U.S. Highways 41 and 64, 9.2 mi southeast of Monteagle. Datum of gage is 621.51 ft above NGVD of 1929. Drainage area is 50.4 mi ² .	1955-99 2000-02	12-14-01	7.80	-	3-12-63	12.20	10,200
Richland Creek near Corners- ville, TN (03583300)	Lat 35°19'10", long 86°52'20", Marshall County, Hydrologic Unit 06030004, at bridge on U.S. Highway 31-A, 3.4 mi southwest of Corners- ville. Datum of gage is 754.28 ft above NGVD of 1929. Drainage area is 47.5 mi ² .	1962-68†, 1969-99 2000-02	1-23-02	15.35	9,460	7-11-89	16.58	11,400
Indian Creek near Olivehill, TN (03594153)	Lat 35°16'33", long 88°01'12", Hardin County, Hydrologic Unit 06040001, on State High- way 64, 14 mi east of Savannah. Datum of gage is 440.00 ft above NGVD of 1929. Drainage area is 158 mi ² .	1997-99 2000-02	12- 1-01	16.27	-	1-22-99	17.06	-
Owl Creek at Lexington, TN (035944242)	Lat 35°38'26", long 88°22'13", Henderson County, Hydrologic Unit 06040001, on State High- way 20, 1.37 mi east of Lexington, and at mi 1.3. Datum of gage is 400.00 ft above NGVD of 1929, prior to March 15, 1990 unknown. Drainage area is 2.50 mi ² .	1984-99 2000-02	3-18-02	25.95	-	3-2-97	26.64	-
Wartrace Creek above Bell Buckle, TN (03597300)	Lat 35°37'45", long 86°21'22", Bedford County, Hydrologic Unit 06040002, at culvert under county road, 2.7 mi north of Bell Buckle. Drain- age area is 4.99 mi ² .	1966-99 2000-02	3-17-02	4.92	406	3-15-73	12.64	3,220
Fountain Creek near Culleoka, TN (03599430)	Lat 35°28'18", long 86°57'23", Maury County, Hydrologic Unit 0604002, on upstream side of bridge on State High- way 50-A, 1.6 mi southeast of Culleoka. 2.7 mi upstream from Globe Creek, and 9.7 mi west of courthouse in Lewisburg. Drainage area is 26.9 mi ² .	1966-68†, 1997-99 2000-02	1-23-02	12.68	7,060	5-13-67	14.16	9,280

See footnotes at the end of the table.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
TENNESSEE RIVER BASIN--Continued								
West Piney River at Hwy 70 near Dickson, TN (03602170)	Lat 36°05'21", long 87°28'12", Dickson County, Hydrologic Unit 06040003, at U.S. Highway 70 bridge, 4.0 mi west of Dickson. Drainage area is 2.16 mi ²	1984-99 2000-02	3-17-02	27.44	-	5- 6-84	28.17	1,230
Coon Creek above Chop Hollow, near Hohen- wald, TN (03604090)	Lat 35°35'19", long 87°41'09", Perry County, Hydrologic Unit 06040004, at bridge on State Highway 20, 9.0 mi northwest of Hohenwald, Drainage area is 6.02 mi ² .	1967-99 2000-02	12- 1-01	5.86	1,820	12- 9-72	6.80	3,150
Blue Creek near New Hope, TN (03604580)	Lat 36°03'52", long 87°38'58", Humphreys County, Hydrologic Unit 06040003, at county road bridge, 1.8 mi north- west of New Hope, 3.1 mi southeast of McEwen, and at mi 3.9. Drainage area is 13.2 mi ² .	1984-99 2000-02	3-17-02	18.53	-	6-13-89	18.82	-
Trace Creek above Denver, TN (03605555)	Lat 36°03'08", long 87°54'27", Humphreys County, Hydrologic Unit 06040005, on left bank at bridge on U.S. Highway 70, 1.0 mi northeast of New Johnson- ville. Datum of gage is 377.05 ft above NGVD of 1929. Drainage area is 31.9 mi ² .	1963-88†, 1989-99 2000-02	11-29-01	11.11	6,690	5- 6-84	13.61	11,700
Cane Creek at Stewart, TN (03605880)	Lat 36°19'09", long 87°50'21", Houston County, Hydrologic Unit 06040005, at bridge on county road, 200 ft north of intersection of county road and State Highway 147, and at mi 7.0. Drainage area is 4.12 mi ² .	1984-99 2000-02	11-29-01	18.98	-	2- 4-97	19.62	-
OBION RIVER BASIN								
Neil Ditch near Henry, TN (07024225)	Lat 36°10'19", long 88°23'33", Henry County, Hydrologic Unit 08010203, located on county road, 2.7 mi southeast of Henry, 1.6 mi north of Henry-Carroll county line. Drainage area is 4.07 mi ² .	1984-99 2000-02	11-29-01	12.51	-	12-21-90	14.48	-
Little Reedy Creek near Huntingdon, TN (07024370)	Lat 35°55'44", long 88°29'50", Carroll County, Hydrologic Unit 008010203, located on U.S. Highway 70, 0.6 mi southwest of Leach, 5.6 mi northeast of Cedar Grove, Drainage area is 0.91 mi ² .	1984-99 2000-02	11-29-01	14.71	-	3- 2-97	16.88	-

See footnotes at the end of table.

Maximum discharge at crest-stage partial-record stations--Continued

Station name and number	Location and drainage area	Period of record	Water year 2002 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
OBION RIVER BASIN--Continued								
Spring Creek near Greenfield, TN (07024760)	Lat 36°11'24", long 88°45'53", Weakley County, Hydrologic Unit 08010203, on State High- way 54, 3.2 mi northeast of Greenfield. Datum of gage is 300.00 ft above NGVD of 1929. Drainage area is 93.4 mi ² .	1997-99 2000-02	11-30-01	28.42	8,800	11-30-01 3- 2-97 5- 6-99 3-19-00 2-16-01	28.42 28.03 24.83 23.43 25.19	8,800 7,800 f 1,260 f 810 f 1,800 f
North Fork Obion River River near Union City, TN (07025500)	Lat 36°23'59", long 88°59'43", Obion County, Hydrologic Unit 08010202, at bridge on State Highway 22, 3.9 mi southeast of Union City. Datum of gage is 285.80 ft above NGVD of 1929. Drainage area is 480 mi ² .	1929-66†, 1967-71†, 1989-93†, 1994-99 2000-02	12- 1-01	20.38	14,400	1-22-37	23.08	49,200
North Fork Forked Deer River at U.S. Highway 45W Bypass at Trenton, TN (07028505)	Lat 35°58'58", long 88°55'49", Gibson County, Hydrologic Unit 08010204, at bridge on U.S. Highway 45W Bypass, 0.25 mi north of intersection of U.S. Highway 45W Bypass and State Highways 77 and 104 in Trenton. Datum of gage is 306.85 ft above NGVD of 1929. Drainage area is 73.9 mi ² .	1987-99 2000-02	11-29-01	11.41	-	12-21-90	12.00	-
Lewis Creek near Dyersburg, TN (07029090)	Lat 36°03'14", long 89°21'42", Dyer County, Hydrologic Unit 08010204, at bridge on U.S. Highway 51 (Business Route), 2.1 mi northeast of square in Dyersburg. Datum of gage is 276.52 ft above NGVD of 1929. Drainage area is 25.5 mi ² .	1955-78, 1980-83, 1985-99 2000-02	11-29-01	15.74	4,500	3- 9-64 2-15-90 10-4-90 12-13-91 5-3-93 11-17-93 5-25-95 7-31-96 3-2-97 5-7-98 5-6-99 5-27-00 2-16-01	19.31 17.57 18.17 14.53 14.07 14.57 12.51 16.81 19.10 16.15 16.26 14.69 15.40	5,450 7,490g 8,850g 3,050g 2,700g 3,090g 1,790g 6,130g 11,000g 4,830g 5,000g 3,180g 3,880g
Hatchie River at Sunnyhill, TN (07029900)	Lat 35°31'23", long 89°15'12", Haywood County, Hydrologic Unit 08010208, at bridge on State Highway 76, 0.6 mi south of Sunnyhill, 4.9 mi south of Brownsville. Drainage area is 1,858 mi ² .	1997-99 2000-02	1-28-02	31.64	-	3-5-97	34.21	-
Cane Creek at Ripley, TN (07030100)	Lat 35°45'25", long 89°33'05", Lauderdale County, Hydrologic Unit 08010208, at bridge on State Highway 19, 1.3 mi upstream from Hyde Creek, 1.5 mi northwest of Ripley. Datum of gage is 295.93 ft above NGVD of 1929. Drainage area is 33.9 mi ² .	1957-62†, 1963-70,h 1986-88†, 1989-99 2000-02	12-17-01	17.83	3,110	7- 1-89	23.16	6,360

† Operated as a continuous-record gaging station.

a A gage height of 17.45 ft occurred on 3-23-29.

b Gage destroyed

c Operated as a flood hydrograph station.

d A peak discharge of 11,000 ft³/s occurred on 5-30-27, from reports of Tennessee Valley Authority.

e Datum of gage prior to 1995 water year unknown due to bridge replacement.

f Not previously published.

g Revised.

h Operated as crest-stage partial-record station.

Miscellaneous Sites

Measurements of streamflow at points other than gaging stations are given in the following table. Measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger(†).

Discharge measurements made at miscellaneous sites during water year 2002

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
TENNESSEE RIVER BASIN						
03594153 Indian Creek	Tennessee River	Lat 35°16'33", long 88°01'12", Hardin County, Hydrologic Unit 06040001, at bridge on U.S. Hwy 64, .75 mi east of Olivehill, 14 mi east of Savannah.	158	2001	5-14-02	239
03600085 Carters Creek	Duck River to Tennessee River	Lat 35°43'39", long 86°59'19", Maury County, Hydrologic Unit 06040003, at bridge on Petty Lane, 0.8 mi north of Carters Creek, and at mile 4.7.	16.6	1986-99 2000-01	11-27-01 2-26-02 5-21-02 8-20-02	10.9 17.0 12.7 .32
03600086 Carters Creek Tributary	Carters Creek to Duck River to Tennessee River	Lat 35°43'34", long 86°59'19", Maury County, Hydrologic Unit 06040003, at culvert on Carters Creek Road, 0.7 mi north of Carters Creek.	2.94	1986-99 2000-01	11-27-01 2-26-02 5-21-02 8-20-02	18.8 6.0 3.2 .46
03604090 Coon Creek above Chop Hollow, near Hohenwald,	Buffalo River to Duck River to Tennessee River	Lat 35°35'19", long 87°41'09", Perry County, Hydrologic Unit 06040004, at bridge on State Highway 20, 9.0 mi northwest of Hohenwald.	6.02	1967-99a 2000-01a	5-14-02	10.5*
03605555 Trace Creek above Denver, TN	Tennessee River	Lat 36°03'08", long 87°54'27", Humphreys County, Hydrologic Unit 06040005, on left bank at bridge on U.S. Highway 70, 1.0 mi northeast of New Johnsonville.	31.9	1963-88‡ 1989-99 2000-01	5-15-02	68.6*
OBION RIVER BASIN						
07024760 Spring Creek near Greenfield, TN	Middle Fork Obion River to Mississippi River	Lat 36°11'24", long 88°45'53", Weakley County, Hydrologic Unit 08010203, on State Highway 54, 3.2 mi northeast of Greenfield.	93.4	1997-99a 2000-01a	5-14-02 9-27-02	138 1210
07025500 North Fork Obion River near Union City, TN	Obion River to Mississippi River	Lat 36°23'59", long 88°59'43", Obion County, Hydrologic Unit 08010202, at bridge on State Highway 22, 3.9 mi southeast of Union City.	480	1929-66‡ 1967-71‡ 1989-93‡ 1994-99a 2000-01a	5-22-02	811
07027360 South Fork Forked Deer	Mississippi River	Lat 35°29'48", long 88°42'43", Madison County, Hydrologic Unit 08010205, at bridge on State Route 197, 1.0 mi northeast of Pinson, and 4.0 mi northwest of Henderson, and at mile 65.6.	239	2001	3-12-02	1650

Miscellaneous Sites--Continued

Discharge measurements made at miscellaneous sites during water year 2002

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
OBION RIVER BASIN--Continued						
07027780 Nixon Creek	South Fork Forked Deer to Mississippi River	Lat 35°16'33", long 88°01'12", Haywood County, Hydrologic Unit 08010205, at bridge on Rudolf Road 2.2 mi from confluence with South Fork Forked Deer River.			4-24-01 8- 7-01	51.5 *0.98
07027900 Black Creek	South Fork Forked Deer to Mississippi River	Lat 35°48'57", long 89°19'15", Crockett County, Hydrologic Unit 08010205, at bridge on State Hwy 88, 3.2 mi south of Chestnut Bluff.	27.3	1958-61 1963 2001	3-13-02 5-13-02	11.4 905
07028000 South Fork Forked Deer River	Mississippi River	Lat 35°51'43", long 89°20'52", Lauderdale County, Hydrologic Unit 08010205, at bridge on Espy Park Rd., 3 mi southeast of Halls and 1 mi downstream of confluence of Black Creek at South Fork Forked Deer River.	1003	1930-57 2001	3-13-02	3290
07028838 Bethel Branch	North Fork Forked Deer to Mississippi River	Lat 36°02'37", long 89°10'48", Dyer County, Hydrologic Unit 08010204, at bridge on Nebo Road, 1.1 mi east of Tatumville.			9-25-02 9-26-02	0.38* 1010
07028850 Doakville Creek	North Fork Forked Deer to Mississippi River	Lat 36°02'18", long 89°12'09", Dyer County, Hydrologic Unit 08010204, at bridge on Tatumville Road, 1.1 mi southeast of Tatumville.			9-26-02 9-27-02	946 484
07029010 Buck Creek	Middle Fork Forked Deer to North Fork Forked Deer to Mississippi River	Lat 35°57'08", long 89°07'04", Gibson County, Hydrologic Unit 08010204, at bridge on Eaton Brazil Road, 1 mi southeast of Eaton.			9-26-02 9-27-02	581 1680
07029080 Pond Creek	North Fork Forked Deer to Mississippi River	Lat 35°59'48", long 89°22'37", Dyer County, Hydrologic Unit 08010204, at bridge on Sorrell Chapel Road, 3.3 mi north of Fowlkes.	68.0		9-25-02 9-26-02 9-27-02	3.7* 594 749
07029090 Lewis Creek near Dyersburg, TN	North Fork Forked Deer to Mississippi River	Lat 36°03'14", long 89°21'42", Dyer County, Hydrologic Unit 08010204, at bridge on U.S. Highway 51 (Business Route), 2.1 mi northeast of square in Dyersburg.	25.5	1955-78,a 1980-83,a 1985-99,a 2000-01a	5-17-02 5-17-02 5-17-02 5-17-02 5-22-02	4110* 3100 2770 2360 5.3*

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Miscellaneous Sites--Continued

Discharge measurements made at miscellaneous sites during water year 2002

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
OBION RIVER BASIN--Continued						
07029880 Poplar Creek	Hatchie River to Mississippi River	Lat 35°26'38", long 89°14'12", Haywood County, Hydrologic Unit 08010208, at bridge on State Route 179.			12-18-01	27
07030100 Cane Creek	Hatchie River to Mississippi River	Lat 35°45'25", long 89°33'05" Lauderdale County, Hydrologic Unit 08010208, at bridge on State Highway 19, 1.3 mi upstream from Hyde Creek, 1.5 mi northwest of Ripley.	33.9	1957-62, 1985-88	5-21-00	4.2*
WOLF RIVER BASIN						
07031660 Wolf River	Mississippi River	Lat 35°07'58", long 89°51'18", Shelby County, Hydrologic Unit 08010210, at bridge on Walnut Grove Road at Memphis.	709	1986-90‡ 2001	7- 2-02	*293
07031670 Wolf River	Mississippi River	Lat 35°09'32", long 89°52'57", Shelby County, Hydrologic Unit 08010210, at bridge on Summer Avenue at Memphis.		1963 1986	6-20-02	502
07031675 Wolf River	Mississippi River	Lat 35°10'22", long 89°53'54", Shelby County, Hydrologic Unit 08010210, at bridge on Covington Pike at Memphis.		2001	7- 2-02	*298
07031718 Wolf River	Mississippi River	Lat 35°11'14", long 89°56'37", Shelby County, Hydrologic Unit 08010210, at bridge on North Highland Street at Memphis.		2001	7- 2-02	*341
07032265 Cypress Creek	Nonconnah Creek to Mississippi River	Lat 35°02'01", long 90°04'12", Shelby County, Hydrologic Unit 08010211, at bridge on Horn Lake Road, at Memphis.			10-30-01	*0.03
07032305 Horn Lake Creek	Mississippi River	Lat 34°59'51", long 90°05'47", Shelby County, Hydrologic Unit 08010211, at bridge on Weaver Road at Memphis.			10-30-01	*3.5

† Operated as continuous record station.

a Operated as crest-stage gage.

Springs

In 1931 a study of large springs in Tennessee was made and the results published in WSP 713. From 1950 to 1954 a more detailed study, including some of these springs, was made. Results of this study and all subsequent spring measurements were published annually in WSP'S from 1950 to 1960. Since 1960 results of measurements have been published in annual State reports. Measurements made in the 2002 water year are given in the following table.

Discharge measurement of springs during water year 2002

Site number and name	Location	Tributary to	Date	<u>Discharge</u> (gpm) (ft ³ /sec)	
COFFEE COUNTY					
03578400 Pond Spring	Lat 35°25'10", long 85°58'29", Hydrologic Unit 06030003, 0.5 mi northwest of Hillsboro.	Bradley Creek to Elk River to Tennessee River	6-03-02 10-22-02	2,700 758	6.02 1.69
03578448 Blue Spring	Lat 35°25'59", long 85°59'34", Hydrologic Unit 06030003, 2.0 mi northwest of Hillsboro	Blue Spring Creek to Bradley Creek to Elk River to Tennessee River	6-03-02 10-22-02	1,780 408	3.96 .91
03578490 Joe Marlow Spring	Lat 35°21'38", long 85°58'35", Hydrologic Unit 06030003, 0.9 mi northwest of Prairie Plains.	Bradley Creek to Elk River to Tennessee River	6-03-02	3,140	7.00
03578495 Unnamed Spring	Lat 35°21'23", long 85°58'43", Hydrologic Unit 06030003, 0.9 mi west of Prairie Plains.	Bradley Creek to Elk River to Tennessee River	6-03-02 10-22-02	2,370 1,270	5.28 2.82
035785004 Unnamed Spring	Lat 35°20'29", long 85°58'55", Hydrologic Unit 06030003, 1.1 mi west of Prairie Plains.	Bradley Creek to Elk River to Tennessee River	6-03-02 10-22-02	3,080 898	6.87 2.0e
03596094 Wiley Spring	Lat 35°24'34", long 86°06'51", Hydrologic Unit 06040002, 0.3 mi northwest of Belmont.	Wiley Creek to Crumpton Creek to Duck River to Tennessee River	6-04-02 10-22-02	1,020 126	2.28 .28
03596300 Short Spring	Lat 35°24'16", long 86°10'40", Hydrologic Unit 06040002, 3.2 mi northeast of Tullahoma.	Bobo Creek to Duck River to Tennessee River	6-04-02 10-22-02	4,140 2,320	9.22 5.16
FRANKLIN COUNTY					
03579045 Spring Creek Spring	Lat 35°18'18", long 86°07'07", Hydrologic Unit 06030003, 2.9 mi north of Estill Springs.	Spring Creek to Elk River to Tennessee River	6-03-02 10-23-02	89.9 35.9	.20 .08

e Estimated

TENNESSEE RIVER BASIN

Coffee and Franklin counties, TN special study

A series of low-flow discharge measurements were made June and October 2002, in the vicinity of Coffee and Franklin counties, to define areas of potential ground-water supplies, low-flow hydrology and quality of water. The measurements were made during a period of constant base flow. Revised drainage area designated by an asterisk(*).

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN							
03578300	Elk River to	Lat 35°20'34", long 85°57'37"	*17.60	6-3-02	5.9	21.1	285
Bean Creek at	Tennessee River	Coffee County, Hydrologic		10-22-02	.50	16.0	366
Prairie Plains,		Unit 06030003, at County Road					
TN		Bridge, 0.5 mi east of Prairie					
		Plains.					
03578395	Elk River to	Lat 35°24'50", long 85°58'31",	*11.78	6-3-02	2.71	19.5	140
Bradley Creek	Tennessee River	Coffee County, Hydrologic		10-22-02	.06	18.9	310
		Unit 06030003, on State					
		Route 41, 0.2 mi northwest					
		of Hillsboro.					
03578399	Bradley Creek to	Lat 35°25'11", long 85°58'28",	1.53	6-3-02	0	--	--
Bradley Creek	Elk River to	Coffee County, Hydrologic		10-22-02	0	--	--
Tributary above	Tennessee River	Unit 06030003, 0.6 mi northwest					
Pond Spring		of Hillsboro.					
at Hillsboro							
03578404	Bradley Creek to	Lat 35°24'52", long 85°58'35",	1.75	6-3-02	6.60	20.5	285
Bradley Creek	Elk River to	Coffee County, Hydrologic		10-22-02	1.46	15.5	407
Tributary	Tennessee River	Unit 06030003, on State					
		Route 41, 0.3 mi northwest					
		of Hillsboro.					
03578445	Bradley Creek to	Lat 35°26'03", long 85°59'38",	*3.98	6-3-02	0	--	--
Blue Spring	Elk River to	Coffee County, Hydrologic		10-22-02	0	--	--
Creek	Tennessee River	Unit 06030003, 2.1 mi					
		northeast of Hillsboro.					
03578449	Blue Spring Creek	Lat 35°25'55", long 85°59'22",	5.84	6-3-02	0	--	--
Warren Branch	to Bradley Creek	Coffee County, Hydrologic		10-22-02	0	--	--
near Blue	Elk River to	Unit 06030003 on Blue Spring					
Spring near	Tennessee River	Road 1.7 mi northwest of					
Hillsboro		Hillsboro.					
03578452	Bradley Creek to	Lat 35°25'04", long 85°59'10",	*10.96	6-3-02	3.27	--	--
Blue Spring	Elk River to	Coffee County, Hydrologic		10-22-02	.62	15.5	445
Creek	Tennessee River	Unit 06030003, on old					
		Hillsboro Highway, 0.9 mi					
		northwest of Hillsboro.					
03578458	Bradley Creek to	Lat 35°23'34", long 86°01'29",	1.62	6-3-02	0	--	--
Bradley Creek	Elk River to	Coffee County, Hydrologic		10-22-02	0	--	--
Tributary near	Tennessee River	Unit 06030003, on Access					
Cow Pond		Highway, 2.0 mi northwest					
		of AEDC.					
03578460	Bradley Creek to	Lat 35°24'10", long 86°01'10"	*2.16	6-3-02	0	--	--
Unnamed	Elk River to	Coffee County, Hydrologic		10-22-02	0	--	--
Tributary to	Tennessee River	Unit 06030003, 3.0 mi					
Bradley Creek		southwest of Hillsboro.					
03578465	Bradley Creek to	Lat 35°24'12", long 85°59'51"	*5.73	6-3-02	0	--	--
Unnamed	Elk River to	Coffee County, Hydrologic		10-22-02	0	--	--
Creek	Tennessee River	Unit 06030003, 1.6 mi					
		southwest of Hillsboro.					

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03578467	Bradley Creek to Elk River to Tennessee River at Hwy 127 near Hillsboro	Lat 35°23'45", long 85°58'40", Coffee County, Hydrologic Unit 06030003, on Hwy 127 1.2 mi south of Hillsboro.	*32.50	6-3-02 10-22-02	10.7 1.18	22.0 17.5	300 380
03578468	Bradley Creek to Collier Branch Elk River to Tennessee River at Prairie Plains Road near Hillsboro	Lat 35°23'42", long 85°58'10" Coffee County, Hydrologic Unit 06030003, on Prairie Plains Road 1.2 mi south of Hillsboro.	*1.61	6-3-02 10-22-02	.15 0	20.5 --	180 --
03578469	Elk River to Tennessee River Bradley Creek at I-24 near Hillsboro	Lat 35°22'52, long 85°58'46", Coffee County, Hydrologic Unit 06030003, on Interstate 24, 2.2 mi south of Hillsboro.	*36.17	6-3-02 10-22-02	11.6 0	20.5 --	302 --
03578470	Elk River to Tennessee River Bradley Creek	Lat 35°22'16", long 85°58'23", Coffee County, Hydrologic Unit 06030003, 1.4 mi north- west of Prairie Plains.	*36.80	6-3-02 10-22-02	10.8 0	20.7 --	447 --
03578485	Elk River to Tennessee River Bradley Creek near Unnamed Spring near Prairie Plains	Lat 35°21'38", long 85°58'32", Coffee County, Hydrologic Unit 06030003, 1.1 mi north- west of Prairie Plains.	*37.97	6-3-02 10-22-02	8.10 .66	21.4 15.7	301 435
03578500	Elk River to Tennessee River Bradley Creek	Lat 35°21'21", long 85°58'45", Coffee County, Hydrologic Unit, 06030003, on Miller Cross Road, 0.9 mi west of Prairie Plains.	*38.53	6-3-02 10-22-02	27.2 11.8	17.5 15.6	469 411
035785002	Elk River to Tennessee River Bradley Creek	Lat 35°20'32", long 85°59'01", Coffee County, Hydrologic Unit 06030003, 1.1 mi west of Prairie Plains.	*39.73	6-3-02 10-22-02	46.4 9.75	20.5 15.0	300 372
035785003	Bradley Creek to Elk River to Tennessee River Tributary at Prairie Plains	Lat 35°20'39", long 85°58'55", Coffee County, Hydrologic Unit 06030003, 0.9 mi west of Prairie Plains.	*0.31	6-4-02 10-22-02	0 0	-- --	-- --
035785015	Bradley Creek to Elk River to Tennessee River Dry Creek	Lat 35°22'47", long 86°01'06", Coffee County, Hydrologic Unit 06030003, on Banes Road, 0.1 mi north of junction will Miller Cross Road.	*0.68	6-3-02 10-22-02	0 0	-- --	-- --
035785016	Bradley Creek to Elk River to Tennessee River Dry Creek	Lat 35°22'07", long 85°59'44", Coffee County, Hydrologic Unit 06030003, on State Route 127, 3.6 mi southwest of Hillsboro	*3.68	6-3-02 10-22-02	0 0	-- --	-- --

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
035785017 Dry Creek	Bradley Creek to Elk River to Tennessee River	Lat 35°21'39", long, 85°59'27", Coffee County, Hydrologic Unit 06030003, on Miller Cross Road, 1.6 mi northwest of Prairie Plains.	*4.17	6-3-02 10-22-02	.003e 0	-- --	-- --
035785018 Dry Creek at mouth at Prairie Plains	Bradley Creek to Elk River to Tennessee River	Lat 35°20'26", long, 85°59'07", Coffee County, Hydrologic Unit 06030003, 1.2 mi south- west of Prairie Plains.	*5.11	6-3-02 10-22-02	8.26 1.91	18.7 14.5	282 307
035785019 Bradley Creek below Mill Dam near Prairie Plains	Elk River to Tennessee River	Lat 35°20'21", long, 85°59'07", Coffee County, Hydrologic Unit 06030003, 1.3 mi south- west of Prairie Plains.	*45.29	6-3-02 10-22-02	27.8 12.9	18.2 14.5	297 325
03578502 Bradley Creek	Elk River to Tennessee River	Lat 35°20'07", long, 85°59'46", Coffee County, Hydrologic Unit 06030003, on Dickerson Road, 1.5 mi southwest of Prairie Plains.	*45.49	6-3-02 10-22-02	34.5 13.0	18.1 14.0	298 331
03578508 Possum Branch Tributary	Possum Branch to Elk River to Tennessee River	Lat 35°20'44", long, 86°01'31", Coffee County, Hydrologic Unit 06030003, on State Route 127, 1.5 mi northeast of Duncantown.	0.43	6-4-02 10-22-02	.001 0	-- --	-- --
03578509 Possum Branch Tributary at Wimbley Road	Possum Branch to Elk River to Tennessee River	Lat 35°20'27", long 86°01'04", Coffee County, Hydrologic Unit 06030003, on Wimbley Road, 3.1 mi southeast of AEDC.	0.20	6-4-02 10-22-02	.20 .18	16.2 15.5	71 .76
03578510 Possum Branch	Elk River to Tennessee River	Lat 35°20'02", long, 86°01'01", Franklin County, Hydrologic Unit 06030003, on Calls Circle Road, 0.7 mi east of intersection with State Route 127, 1.4 mi northwest of Duncantown.	*1.53	6-4-02 10-22-02	.27 .14	25.2 17.9	84 96
03578515 Possum Branch	Elk River to Tennessee River	Lat 35°19'32", long, 86°01'08", Franklin County, Hydrologic Unit 06030003, on county road, 1.3 mi east of Duncantown.	*1.90	6-4-02 10-22-02	.32 .19	23.2 16.3	82 102
03578610 Brumalow Creek	Elk River to Tennessee River	Lat 35°21'55", long, 86°02'48", Coffee County, Hydrologic Unit 06030003, 0.8 mi northwest of Duncantown.	*0.55	6-3-02 10-22-02	.04 .02	19.3 14.5	165 286
03578625 Brumalow Creek	Elk River to Tennessee River	Lat 35°21'23", long, 86°02'37", Coffee County, Hydrologic Unit 06030003, on unimproved road, 1.5 mi north of Old Brick Church Road, 2.1 mi north of Duncantown.	*0.90	6-3-02 10-22-02	.31 .18	20.0 15.0	134 198

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03578630 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°21'44", long, 86°01'41", Coffee County, Hydrologic Unit 06030003, on county road, 0.8 mi southeast of intersection with Arnold Center Road.	0.58	6-3-02 10-22-02	.01 0	20.1 --	440 --
03578635 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°21'26", long, 86°02'15", Coffee County, Hydrologic Unit 06030003, on county road, 1.5 mi north of Old Brick Church Road, 2.2 mi north of Duncantown.	1.40	6-3-02 10-22-02	.30 0	18.1 --	18 --
03578640 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°21'21", long, 86°02'34", Coffee County, Hydrologic Unit 06030003, 1.5 mi north of Old Brick Church Road, 2.1 mi north of Duncantown.	*1.59	6-3-02 10-22-02	.50 .07	18.3 14.5	74 125
03578670 Brumalow Creek Tributary	Brumalow Creek to Elk River to Tennessee River	Lat 35°20'51", long, 86°02'46", Coffee County, Hydrologic Unit 06030003, on unimproved road, 0.4 mi north of Old Brick Church Road, 0.8 mi northwest of Duncantown.	*0.67	6-3-02 10-22-02	.02 0	17.1 --	36 --
03578680 Brumalow Creek	Elk River to Tennessee River	Lat 35°20'30", long, 86°02'41", Franklin County, Hydrologic Unit 06030003, on unimproved road, 0.5 mi north of Old Brick Church Road, 1.2 mi northwest of Duncantown.	*3.92	6-3-02 10-22-02	1.31 .31	19.8 14.7	74 152
03578700 Brumalow Creek	Elk River to Tennessee River	Lat 35°20'11", long, 86°02'39", Franklin County, Hydrologic Unit 06030003, 0.6 mi northwest of Duncantown.	*4.13	6-3-02 10-22-02	1.36 .28	21.1 14.7	67 142
03578712 Brumalow Creek Tributary at Woods Reservoir	Elk River to Tennessee River	Lat 35°20'04", long 86°02'47", Franklin County, Hydrologic Unit 06030003, 0.7 mi northwest of Duncantown.	1.02	6-3-02 10-22-02	0 0	-- --	-- --
03578714 Brumalow Creek Tributary at Old Brick Church Road	Brumalow Creek to Elk River to Tennessee River	Lat 35°20'09", long 86°02'24", Franklin County, Hydrologic Unit 06030003, on Old Brick Church Road, 0.8 mi north of Duncantown.	0.86	6-3-02 10-22-02	0 0	-- --	-- --
03578725 Hardaway Branch at Old Brick Church Road	Elk River to Tennessee River	Lat 35°20'18", long 86°03'35", Franklin County, Hydrologic Unit 06030003, on Old Brick Church Road, 1.1 mi northeast of Duncantown.	0.75	6-3-02 10-22-02	0 0	-- --	-- --

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03578975 Rowland Creek at Arnold Center Road	Elk River to Tennessee River	Lat 35°21'29", long 86°04'05", Coffee County, Hydrologic Unit 06030003, on Arnold Center Road, 1.5 mi southwest of AEDC.	*0.81	6-4-02 10-23-02	38.1 9.17	29.1 18.3	146 179
03578980 Rowland Creek Tributary at USTI Road at AEDC near Manchester	Rowland Creek to Elk River to Tennessee River	Lat 35°20'28", long 86°05'35", Franklin County, Hydrologic Unit 06030003, 3.4 mi southwest of AEDC.	*3.11	6-4-02 10-23-02	38 9.11	25.2 19.3	161 173
03578987 Rowland Creek at End of Roadway at AEDC near Manchester	Elk River to Tennessee River	Lat 35°20'10", long 86°06'37", Franklin County, Hydrologic Unit 06030003, 4.3 mi southwest of AEDC at Arnold Road.	*5.19	6-5-02 10-23-02	34.1 11.5	24.6 18.9	162 161
03578988 Rowland Creek Tributary at Rowland Creek near Manchester	Rowland Creek to Elk River to Tennessee River	Lat 35°20'11", long 86°06'42", Franklin County, Hydrologic Unit 06030003, on Arnold Air Force Base Road, 4.2 mi northeast of Estill Springs.	1.02	6-5-02 10-23-02	0 0	-- --	-- --
03579020 Spring Creek in Saltwell Hollow	Elk River to Tennessee River	Lat 35°19'33", long 86°07'39", Franklin County, Hydrologic Unit 06030003, 2.6 mi north of Estill Springs.	*2.75	6-5-02 10-23-03	0 0	-- --	-- --
03579028 Spring Creek Tributary in Saltwell Hollow	Spring Creek to Elk River to	Lat 35°19'06", long 86°07'42", Franklin County, Hydrologic Unit 06030003, 2.6 mi north of Estill Springs.	*2.81	6-5-02 10-23-03	0 0	-- --	-- --
03579035 Spring Creek below Spring Creek Cemetery near Saltwell Hollow	Spring Creek to Elk River to Tennessee River	Lat 35°19'06", long 86°07'41", Franklin County, Hydrologic Unit 06030003, 1.8 mi north Estill Springs.	*7.67	6-4-02 10-23-02	6.09 4.52	16.1 14.2	99 115
03579040 Spring Creek off Spring Creek Road at AEDC near Manchester	Elk River to Tennessee River	Lat 35°18'16", long 86°07'21", Franklin County, Hydrologic Unit 06030003, 1.6 mi north of Estill Springs.	*9.57	6-3-02 10-23-02	10.4 8.32	16.8 14.5	105 113
03579050 Spring Creek Tributary off Spring Creek Road near Manchester	Spring Creek to Elk River to Tennessee River	Lat 35°18'17", long 86°07'08", Franklin County, Hydrologic Unit 06030003, 0.9 mi west of Woods Reservoir Dam.	*0.27	6-3-02 10-23-02	.36 .16	18.1 15.5	100 113
03579502 Taylor Creek at Hwy 41 at Estill Springs	Elk River to Tennessee River	Lat 35°16'36", long 86°07'59", Franklin County, Hydrologic Unit 06030003, 0.3 mi northwest of Estill Springs.	2.92	6-4-02 10-23-02	5.42 .71	15.9 14.9	118 126

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
035795025 Dry Creek at Estill Springs	Elk River to Tennessee River	Lat 35°16'35", long 86°08'14", Franklin County, Hydrologic Unit 06030003, 0.4 mi northwest of Estill Springs.	4.75	6-4-02 10-23-02	7.09 7.45	16.6 15.7	85 91
03579503 Dry Creek Northwest of Estill Springs	Elk River to Tennessee River	Lat 35°17'26", long 86°09'46", Franklin County, Hydrologic Unit 06030003, 1.5 mi northwest of Estill Springs.	3.05	6-4-02 10-23-02	0 0	-- --	-- --
035796182 North Fork Rock Creek at Tullahoma	Rock Creek to Elk River to Tennessee River	Lat 35°22'44", long 86°13'49", Coffee County, Hydrologic Unit 06030003, 1.2 mi northwest of Tullahoma	2.65	6-5-02 10-23-02	0 0	-- --	-- --
035796185 North Fork Rock Creek Tributary at Hwy 41 at Tullahoma	North Fork Rock Creek to Rock Creek to Elk River to Tennessee River	Lat 35°22'27", long 86°13'21", Coffee County, Hydrologic Unit 06030003, at Hwy 41 in Tullahoma.	0.73	6-5-02 10-23-02	.03 0	25.3 --	250 --
035796188 West Fork Creek at Tullahoma	Rock Creek to Elk River to Tennessee River	Lat 35°22'10", long 86°13'41", Coffee County, Hydrologic Unit 06030003, at Cedar Lane in Tullahoma.	7.43	6-5-02 10-23-02	.51 .11	22.2 14.7	131 133
03579620 Rock Creek at Tullahoma	Rock Creek to Elk River to Tennessee River	Lat 35°21'34", long, 86°12'47", Coffee County, Hydrologic Unit 06030003, on Lincoln Street at Tullahoma.	*12.68	6-5-02 10-23-02	2.65 1.19	20.6 15.5	116 142
03579623 Rock Creek above sewer outfall at Tullahoma	Rock Creek to Elk River to Tennessee River	Lat 35°20'46", long, 86°12'44", Franklin County, Hydrologic Unit 06030003, 0.4 mi south of Tullahoma.	*13.02	6-5-02 10-23-02	2.40 1.50	20.8 15.7	130 154
03579635 North Fork Rock Creek near Confluence of West Branch Branch	Rock Creek to Elk River to Tennessee River	Lat 35°19'37", long, 86°12'35", Franklin County, Hydrologic Unit 06030003, 1.6 mi south of Tullahoma.	16.35	6-5-02 10-23-02	7.49 5.63	21.6 17.4	437 464
03579640 Blue Creek near Tullahoma	Blue Creek to Elk River to Tennessee River	Lat 35°19'33", long, 86°12'38", Franklin County, Hydrologic Unit 06030003, 2.5 mi south of Tullahoma.	*9.11	6-5-02 10-23-02	.36 .05	17.2 17.0	98 100
03579655 Poorhouse Creek at Hwy 41A near Tullahoma	Rock Creek to to Elk River to Tennessee River	Lat 35°19'51", long, 86°10'54", Franklin County, Hydrologic Unit 06030003, on Hwy 41A, 2.0 mi southeast of Tullahoma.	2.79	6-4-02 10-23-02	.02 0	23.3 --	258 --

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03579660 Poorhouse Creek near Tullahoma	Poorhouse Creek to Elk River to Tennessee River	Lat 35°18'16", long, 86°11'38", Franklin County, Hydrologic Unit 06030003, 4.0 mi southeast of Tullahoma.	*5.17	6-5-02 10-23-02	3.73 1.75	19.0 14.6	106 111
03579680 Rock Creek near Tullahoma	Rock Creek to Elk River to Tennessee River	Lat 35°17'16", long, 86°11'17", Franklin County, Hydrologic Unit 06030003, 5.2 mi southeast of Tullahoma.	*36.50	6-4-02 10-23-02	19.0 13.5	22.6 15.9	218 260
03595020 Huckleberry Creek Tributary near Hill Cemetery	Huckleberry Creek to Little Duck River to Duck River to Tennessee River	Lat 35°26'44", long, 86°04'40", Coffee County, Hydrologic Unit 06040002, on Hills Chapel Road, 2.2 mi south of Manchester.	0.84	6-3-02 10-22-02	0 0	-- --	-- --
03595030 Huckleberry Creek near Huckleberry Creek Dam	Little Duck River to Duck River to Tennessee River	Lat 35°26'18", long, 86°03'58", Coffee County, Hydrologic Unit 06040002, 2.7 mi southeast of Manchester.	0.75	6-3-02 10-22-02	0 0	-- --	-- --
03595040 Hunt Creek near Dam near I-24	Little Duck River to Duck River to Tennessee River	Lat 35°26'57", long, 86°02'54", Coffee County, Hydrologic Unit 06040002, near I-24, 2.7 mi southeast of Manchester.	6.16	6-4-02 10-22-02	.28 0	31.3 --	66 --
03595050 Hunt Creek Tributary at I-24	Hunt Creek to Little Duck River to Duck River to Tennessee River	Lat 35°26'59", long, 86°02'53", Coffee County, Hydrologic Unit 06040002, on I-24, 2.6 mi southeast of Manchester.	2.46	6-4-02 10-22-02	0 0	-- --	-- --
03595100 Little Duck River southeast of Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°27'44", long, 86°03'54", Coffee County, Hydrologic Unit 06040002, on Hwy 41 1.0 mi north of Interstate 24.	*13.02	6-4-02 10-23-02	3.32 2.39	20.7 16.9	185 235
03595110 Hickory Flat Creek near White Oaks at Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°27'48", long, 86°03'40", Coffee County, Hydrologic Unit 06040002, on Duck River Road, 1.4 mi southeast of Manchester.	1.67	6-4-02 10-22-02	.05 0	21.2 --	206 --
03595200 Wolf Creek near Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°28'52", long, 86°03'51", Coffee County, Hydrologic Unit 06040002, 1.0 mi northeast of Manchester.	*19.32	6-3-02 10-22-02	4.69 4.41	23.0 19.0	189 200
03595255 Roan Buck Branch at Shedd Road near Manchester	Wolf Creek to Little Duck River to Duck River to Tennessee River	Lat 35°29'17", long, 86°01'56", Coffee County, Hydrologic Unit 06040002, on Shedd Road, 2.7 mi northeast of Manchester.	3.36	6-4-02 10-23-02	.09 .05	23.6 12.9	111 230

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03595258 Wolf Creek at Shedd Road near Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°29'28", long, 86°01'57", Coffee County, Hydrologic Unit 06040002, on Shedd Road, 2.8 mi northeast of Manchester.	12.12	6-3-02 10-23-02	2.83 1.57	23.0 12.8	210 238
03595300 Little Duck River at Hwy 55 at Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°28'49", long, 86°04'46", Coffee County, Hydrologic Unit 06040002, at bridge on State Hwy 55, 0.5 mi south of Interstate 24.	*35.58	6-4-02 10-22-02	10.4 7.29	20.1 13.2	180 215
03595520 Grindstone Hollow Creek at Manchester	Grindstone Hollow Creek to Duck River to Tennessee River	Lat 35°28'56", long, 86°05'32", Coffee County, Hydrologic Unit 06040002, on Oak Street at Manchester.	*2.17	6-4-02 10-22-02	0 0	-- --	-- --
03595700 Little Duck at Grindstone Hollow at Manchester	Little Duck River to Duck River to Tennessee River	Lat 35°29'08", long, 86°06'06", Coffee County, Hydrologic Unit 06040002, 0.7 mi east of Manchester.	*40.87	6-4-02 10-23-02	14.9 13.2	22.7 14.7	177 205
03596000 Duck River below Manchester	Duck River to Tennessee River	Lat 35°28'15", long, 86°07'18", Coffee County, Hydrologic Unit 06040002, 2.0 mi southeast of Manchester.	*112.61	6-4-02 10-22-02	42.8 44.6	23.5 16.0	176 180
03596020 Bates Spring Branch near Manchester	Duck River to Tennessee River	Lat 35°27'17", long, 86°08'09", Coffee County, Hydrologic Unit 06040002, 1.7 mi southeast of Manchester.	1.30	6-4-02 10-23-02	.59 .48	18.0 13.5	70 85
03596023 Cat Creek near Cat Creek Road	Duck River to Tennessee River	Lat 35°27'17", long, 86°06'52", Coffee County, Hydrologic Unit 06040002, 1.6 mi southwest of Manchester.	1.24	6-4-02 10-22-02	.36 .41	20.3 16.0	72 82
035960745 Crompton Creek at AEDC near Old Hillsboro Road	Duck River to Tennessee River	Lat 35°24'00", long, 86°03'15", Coffee County, Hydrologic Unit 06040002, 1.5 mi north of AEDC.	1.47	6-4-02 10-22-02	0 0	-- --	-- --
035960755 Sinking Pond Outfall at AEDC near Manchester	Sinking Pond to Crompton Creek to Duck River to Tennessee River	Lat 35°24'00", long, 86°03'40", Coffee County, Hydrologic Unit 06040002, on Old Hillsboro Road, 1.6 mi northwest of AEDC.	*1.60	6-4-02 10-23-02	0 0	-- --	-- --
035960758 Crompton Creek Southwest of Sinking Pond at AEDC	Duck River to Tennessee River	Lat 35°23'40", long, 86°03'56", Coffee County, Hydrologic Unit 06040002, 1.2 mi northwest of AEDC.	3.58	6-4-02 10-23-02	.11 0	20.6 --	62 --

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03596076 Crumpton Creek near Chapel Hill Cemetery	Duck River to Tennessee River	Lat 35°23'23", long, 86°04'26", Coffee County, Hydrologic Unit 06040002, 1.7 mi northwest of AEDC.	*4.16	6-4-02 10-22-02	.15 0	20.2 --	36 --
035960765 Crumpton Creek above Retention Pond Outflow	Duck River to Tennessee River	Lat 35°22'54", long, 86°04'41", Coffee County, Hydrologic Unit 06040002, 1.6 mi west of AEDC.	5.35	6-4-02 10-22-02	0 0	-- --	-- --
035960768 Crumpton Creek Tributary from Retention Pond	Crumpton Creek to Duck River to Tennessee River	Lat 35°22'50", long, 86°04'32", Coffee County, Hydrologic Unit 06040002, 1.6 west of AEDC.	1.35	6-4-02 10-22-02	.05 0	21.4 --	87 --
03596077 Unnamed trib to Crumpton Creek below AEDC near Manchester	Crumpton Creek to Duck River to Tennessee River	Lat 35°22'46", long, 86°04'01", Coffee County, Hydrologic Unit 06040002, on Arnold Air Force Road below Lake outfall.	*1.50	6-4-02 10-23-02	.04 .08	19.0 13.8	175 195
035960775 Crumpton Creek Tributary at Confluence	Crumpton Creek to Duck River to Tennessee River	Lat 35°22'45", long, 86°04'33", Coffee County, Hydrologic Unit 06040002, 1.5 mi west of AEDC.	0.69	6-4-02 10-22-02	.005e 0	-- --	-- --
03596078 Crumpton Creek near Arnold Airport at AEDC near Manchester	Duck River to Tennessee River	Lat 35°22'37", long, 86°05'01", Coffee County, Hydrologic Unit 06040002, on Hillsboro Road, 2.0 mi west of AEDC.	*7.74	6-4-02 10-22-02	0 0	-- --	-- --
03596079 Crumpton Creek at Old Hillsboro Road near Hickerson	Crumpton Creek to Duck River to Tennessee River	Lat 35°23'30", long, 86°06'43", Coffee County, Hydrologic Unit 06040002, on Old Hillsboro Road, 2.0 mi south of Belmont.	*10.45	6-4-02 10-22-02	.95 .37	18.3 15.6	148 171
03596081 Crumpton Creek Tributary at Belmont Road near Hickerson Station	Crumpton Creeek to Duck River to Tennessee River	Lat 35°24'14", long, 86°06'27", Coffee County, Hydrologic Unit 06040002, on Belmont Road, 1.2 mi south of Belmont.	*1.49	6-4-02 10-22-02	0 0	-- --	-- --

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03596082 Unnamed Tributary to Crumpton Creek at Belmont Road	Crumpton Creek to Duck River to Tennessee River	Lat 35°23'59", long, 86°06'27", Coffee County, Hydrologic Unit 06040002, on Belmont Road, 1.6 mi south southwest of Belmont.	*1.62	6-4-02 10-22-02	0 0	-- --	-- --
03596086 Crumpton Creek at Old Manchester Hwy near Hickerson Station	Duck River to Tennessee River	Lat 35°24'45", long, 86°07'26", Coffee County, Hydrologic Unit 06040002, on Old Manchester Hwy, 1.0 mi southwest of Belmont.	*15.90	6-4-02 10-23-02	.65 0	20.8 --	148 --
035960875 Hickerson Spring Branch at Old Manchester Hwy	Crumpton Creek to Duck River to Tennessee River	Lat 35°24'38", long, 86°07'49", Coffee County, Hydrologic Unit 06040002, 1.1 mi southwest of Belmont.	*4.79	6-4-02 10-23-02	.95 .96	21.0 13.7	167 187
03596088 Crumpton Creek Tributary at Rutledge Falls	Crumpton Creek to Duck River to Tennessee River	Lat 35°24'47", long, 86°08'08", Coffee County, Hydrologic Unit 06040002, 1.2 mi southwest of Belmont.	*1.08	6-4-02 10-23-02	.52 .41	14.3 13.1	102 183
03596090 Crumpton Creek above Rutledge Falls	Crumpton Creek to Duck River to Tennessee River	Lat 35°25'18", long, 86°08'08", Coffee County, Hydrologic Unit 06040002, above county bridge, 0.1 mi north of Rutledge Falls, 0.5 mi northwest of Belmont.	*22.36	6-4-02 10-23-02	4.60 3.05	18.5 12.6	146 188
035960910 Wiley Creek above Landfill	Crumpton Creek to Duck River to Tennessee River	Lat 35°26'10", long, 86°05'49", Coffee County, Hydrologic Unit 06040002, 1.3 mi northeast of Belmont.	1.53	6-3-02 10-22-02	0 0	-- --	-- --
03596092 Wiley Creek at Old Manchester Hwy	Crumpton Creek to Duck River to Tennessee River	Lat 35°24'45", long, 86°07'26", Coffee County, Hydrologic Unit 06040002, on Old Manchester Hwy, 0.9 mi north of Belmont.	*1.74	6-3-02 10-22-02	0 0	-- --	-- --
03596096 Wiley Creek below Wiley Spring at Belmont	Wiley Creek to Crumpton Creek to Duck River to Tennessee River	Lat 35°25'33", long, 86°06'56", Coffee County, Hydrologic Unit 06040002, 0.3 mi northwest of Belmont.	*3.08	6-4-02 10-22-02	3.78 .89	15.0 15.5	155 200
03596099 Wiley Creek at Rutledge Falls	Crumpton Creek to Duck River to Tennessee River	Lat 35°25'21", long, 86°08'07", Coffee County, Hydrologic Unit 06040002, on Rutledge Falls Road, 1.6 mi north of Hickerson Station.	*4.65	6-4-02 10-23-02	5.81 2.72	16.7 12.7	157 195

TENNESSEE RIVER BASIN
Coffee and Franklin counties, TN special study--continued

Stream	Tributary to	Location	Drainage area (mi ²)	Date	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
03596120 Crumpton Creek below Rutledge Falls	Duck River to Tennessee River	Lat 35°25'18", long, 86°06'20", Coffee County, Hydrologic Unit 06040002, 1.2 mi west of Belmont.	27.04	6-4-02 10-23-02	12.7 7.62	18.8 13.9	153 176
03596201 Calanthe Lake Overflow near Tullahoma	Duck River to Tennessee River	Lat 35°24'36", long, 86°12'08", Coffee County, Hydrologic Unit 06040002, 2.4 mi north of Tullahoma.	3.68	6-5-02 10-23-02	1.43 1.13	24.8 16.3	101 126
03596295 Bobo Creek at Carter Blake Road	Duck River to Tennessee River	Lat 35°23'36", long, 86°10'55", Coffee County, Hydrologic Unit 06040002, on Blake Road, 2.5 mi northeast of Tullahoma.	6.47	6-4-02 10-23-02	.77 .65	17.1 15.5	105 143
03596302 Bobo Creek above Short Spring	Duck River to Tennessee River	Lat 35°24'21", long, 86°10'42", Coffee County, Hydrologic Unit 06040002, 2.8 mi northeast of Tullahoma.	8.32	6-4-02 10-23-02	1.19 1.21	21.7 13.7	111 149
03596304 Machine Falls Branch above Falls near Mt. Vernon	Bobo Creek to Duck River to Tennessee River	Lat 35°24'45", long, 86°10'43", Coffee County, Hydrologic Unit 06040002, 0.6 mi southwest of Mt. Vernon.	1.43	6-5-02 10-23-02	.61 .41	18.1 12.9	64 81

TENNESSEE RIVER BASIN

Hamilton county, TN special study

A series of low-flow discharge measurements were made April 16, 2002, in the vicinity of Chattanooga, TN (Hamilton county), to define areas of potential ground-water supplies, low-flow hydrology and quality of water. The measurements were made during a period of constant base flow.

Stream	Tributary to	Location	Date	Drainage area (mi ²)	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN							
03566516 North Chickamauga Creek	Tennessee River	Lat 35°14'54", long 85°15'24", Hamilton County, Hydrologic Unit 06020001, 1.1 mi east of Boston Branch Lake, and at river mile 20.7.	4-16-02	58.43	40	15.5	24
03566520 North Chickamauga Creek	Tennessee River	Lat 35°14'49", long 85°14'55", Hamilton County, Hydrologic Unit 06020001, 1.4 mi west of Montlake, 2.6 mi northwest of Mile Straight, and at river mile 20.2.	4-16-02	58.96	41	16.5	24
03566522 North Chickamauga Creek	Tennessee River	Lat 35°14'54", long 85°14'21", Hamilton County, Hydrologic Unit 06020001, 0.9 mi north- west of Montlake, 2.4 mi north of Mile Straight, and at river mile 19.6.	4-16-02	59.59	41	17.5	24
03566524 North Chickamauga Creek	Tennessee River	Lat 35°14'33", long 85°14'12", Hamilton County, Hydrologic Unit 06020001, 0.6 mi west of Montlake, 2.0 mi north of Mile Straight, and at river mile 19.1.	4-16-02	60.21	49	18.0	32
03566525 North Chickamauga Creek	Tennessee River	Lat 35°14'18", long 85°14'05", Hamilton County, Hydrologic Unit 06020001, 0.6 mi west of Montlake, 1.7 mi north of Mile Straight, and at river mile 18.8.	4-16-02	60.55	46	19.0	29
03566528 North Chickamauga Creek	Tennessee River	Lat 35°14'10", long 85°14'03", Hamilton County, Hydrologic Unit 06020001, 0.6 mi south- west of Montlake, 1.6 mi north of Mile Straight, and at river mile 18.6.	4-16-02	60.99	51	18.5	34
03566530 North Chickamauga Creek	Tennessee River	Lat 35°13'20", long 85°13'16", Hamilton County, Hydrologic Unit, 06020001, between Mile Straight and Daisy at Dayton Pike bridge crossing.	4-16-02	62.63a	49	16.0	33
0356653019 North Chickamauga Creek	Tennessee River	Lat 35°12'52", long 85°12'58", Hamilton County, Hydrologic Unit 06020001, at U.S. Highway 27 bridge crossing, 2.6 mi southwest of Daisy.	4-16-02	63.61	30	16.0	34

TENNESSEE RIVER BASIN
Hamilton county, TN special study--continued

Stream	Tributary to	Location	Date	Drainage area (mi ²)	Measured discharge (ft ³ /s)	Water temp. (C°)	Specific cond. (us/ cm)
TENNESSEE RIVER BASIN--continued							
035665348 Poe Branch	North Chickamauga Creek to Tennessee River	Lat 35° 12' 48", long 85° 12' 52", Hamilton County, Hydrologic Unit 06020001, 0.8 mi east of Mile Straight, 2.4 mi northwest of Middle Valley.	4-16-02	9.81a	3.7	19.5	150
03566535 North Chickamauga Creek	Tennessee River	Lat 35° 12' 40", long 85° 12' 55", Hamilton County, Hydrologic Unit 06020001, at Thrasher Pike, 2 mi upstream from Falling Water Creek, and 3 mi southwest of Daisy.	4-16-02	74.0	35	16.5	51
03566543 Falling Water Creek	North Chickamauga Creek to Tennessee River	Lat 35° 11' 39", long, 85° 14' 36", Hamilton County, Hydrologic Unit 06020001, at bridge on Dayton Pike, at Falling Water.	4-16-02	13.3	19	12.5	104

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN									
03408500 NEW RIVER AT NEW RIVER, TN									
SEP 2002									
30...	1120	194	263	20.5					
03409500 CLEAR FORK NEAR ROBBINS, TN									
DEC 2001					SEP 2002				
12...	1350	434	59	9.5	18...	1045	5.0	68	24.5
APR 2002									
10...	1450	327	50	13.5					
03410210 SOUTH FORK CUMBERLAND RIVER AT LEATHERWOOD FORD, TN									
JUN 2002					SEP 2002				
04...	1100	166	156	26.5	30...	1510	392	214	21.0
AUG									
14...	1330	22	126	27.5					
03414500 EAST FORK OBEY RIVER NEAR JAMESTOWN, TN									
OCT 2001					APR 2002				
03...	1120	18	285	16.5	02...	1124	1340	95	12.5
NOV					MAY				
15...	1405	19	316	10.0	21...	1215	314	135	15.0
JAN 2002					JUL				
15...	1215	255	130	6.5	18...	1505	23	342	25.0
03415000 WEST FORK OBEY RIVER NEAR ALPINE, TN									
OCT 2001					APR 2002				
03...	0840	8.4	447	14.5	02...	1340	556	208	14.5
NOV					MAY				
15...	1225	9.1	521	10.0	21...	1025	142	225	12.5
JAN 2002					JUL				
15...	0940	94	420	4.5	18...	1356	17	312	27.0
24...	1100	8410	215	10.0	AUG				
25...	1540	1900	237	11.5	27...	1430	7.4	356	27.5
03418070 ROARING RIVER ABOVE GAINESBORO, TN									
OCT 2001					MAR 2002				
16...	1220	52	277	14.0	13...	1240	50	250	11.0
JAN 2002					18...	1205	10700	138	13.0
08...	1045	42	266	3.0	19...	1240	2530	165	14.0
					MAY				
					16...	1030	405	225	15.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03421000 COLLINS RIVER NEAR MCMINNVILLE, TN									
OCT 2001					MAY 2002				
02...	1420	176	261	15.5	29...	1826	607	195	20.0
NOV					JUL				
14...	1445	136	292	12.0	18...	1045	187	263	24.5
JAN 2002									
14...	1335	619	219	7.5					
25...	1130	32600	131	10.5					
03424730 SMITH FORK AT TEMPERANCE HALL, TN									
OCT 2001					MAY 2002				
04...	1110	18	335	17.7	28...	1505	98	301	23.5
NOV					JUL				
16...	1125	23	318	9.0	18...	1105	36	289	28.0
MAR 2002					AUG				
18...	1526	6890	248	13.0	27...	1120	39	213	26.0
03426385 MANSKER CREEK ABOVE GOODLETTSVILLE, TN									
OCT 2001					MAY 2002				
01...	1315	.65	475	20.5	08...	0830	39	395	16.5
NOV					JUL				
14...	1135	3.5	498	11.0	10...	1035	10	341	24.5
JAN 2002					AUG				
07...	0910	11	410	3.0	22...	1241	2.2	417	28.5
MAR									
13...	1430	45	352	12.5					
03426470 DRY CREEK NEAR EDENWOLD, TN									
OCT 2001					MAY 2002				
01...	1415	.16	414	17.0	08...	1130	9.3	452	17.5
NOV					JUL				
14...	1320	.53	608	13.0	10...	0855	4.0	557	22.5
JAN 2002					AUG				
07...	1145	2.5	520	6.0	22...	1027	.81	661	24.5
MAR									
13...	1610	9.3	560	12.5					
03427500 EAST FORK STONES RIVER NEAR LASCASSAS, TN									
OCT 2001					MAR 2002				
09...	1035	46	390	20.2	11...	1254	96	466	10.5
NOV					MAY				
06...	1135	28	425	14.5	23...	1035	120	368	16.5
JAN 2002					JUL				
18...	1035	81	410	7.0	09...	1030	16	294	25.5
24...	1100	15600	241	13.0					

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03430147 STONERS CREEK NEAR HERMITAGE, TN									
OCT 2001					MAY 2002				
01...	1520	.67	525	18.5	08...	1430	24	457	20.5
NOV					JUL				
14...	0900	1.3	577	10.5	25...	1045	10	443	24.5
JAN 2002					AUG				
07...	1315	6.3	315	4.0	22...	1343	1.9	480	27.5
MAR									
20...	1315	575	268	13.0					
03430550 MILL CREEK NEAR NOLENSVILLE, TN									
OCT 2001					JUL 2002				
04...	1005	.79	600	18.0	11...	1115	18	250	24.5
NOV					AUG				
05...	1000	3.2	615	16.0	13...	1245	.61	600	27.0
JAN 2002					21...	1130	1.5	579	24.5
09...	0915	9.7	538	3.5	SEP				
MAR					06...	1130	.46	682	23.0
14...	1130	40	508	10.0	19...	1035	5.6	405	23.5
MAY									
20...	1130	31	470	17.0					
03431060 MILL CREEK AT THOMPSON LANE NEAR WOODBINE, TN									
OCT 2001					MAY 2002				
09...	1250	4.8	430	19.5	20...	1100	90	516	16.0
16...	1346	37	569	15.5	JUL				
NOV					11...	1355	68	400	27.5
05...	0805	5.1	540	15.5	AUG				
JAN 2002					21...	1235	10	486	27.0
17...	1050	27	515	6.5					
MAR									
14...	1015	82	515	11.0					
03431300 BROWNS CREEK AT STATE FAIRGROUNDS AT NASHVILLE, TN									
OCT 2001					MAR 2002				
01...	0845	1.5	606	15.5	20...	0910	396	337	14.0
23...	1240	1.3	573	21.5	20...	1000	338	388	14.0
NOV					MAY				
08...	1010	2.1	625	12.5	15...	1515	22	525	19.0
30...	0900	3.5	644	9.0	JUL				
JAN 2002					11...	1450	7.9	530	24.0
09...	1105	4.1	581	9.5	AUG				
					21...	1015	5.0	602	23.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
 WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03431599 WHITES CREEK NEAR BORDEAUX, TN									
OCT 2001					MAY 2002				
01...	1055	.62	655	14.5	14...	1310	153	360	18.0
NOV					JUL				
14...	1450	4.1	578	14.5	11...	0915	39	475	24.5
JAN 2002					AUG				
17...	1020	14	480	7.0	22...	0843	3.8	687	25.0
MAR									
20...	0955	2470	160	13.0					
03431700 RICHLAND CREEK AT CHARLOTTE AVE AT NASHVILLE, TN									
OCT 2001					MAY 2002				
09...	0930	2.5	496	14.0	20...	1300	20	535	17.5
NOV					JUL				
20...	1150	10	470	13.0	17...	0915	12	512	23.5
JAN 2002					AUG				
17...	1235	6.4	490	11.5	22...	1400	4.3	480	27.5
MAR									
27...	0945	65	450	12.0					
03432350 HARPETH RIVER AT FRANKLIN, TN									
OCT 2001					MAY 2002				
09...	0941	24	367	13.5	29...	0837	60	393	21.0
JAN 2002					JUN				
17...	1335	62	406	6.5	28...	1110	3.8	354	30.0
MAR					JUL				
19...	1200	2300	296	13.0	29...	0858	6.6	649	25.0
APR									
29...	1320	97	320	19.0					
034323531 HARPETH RIVER TRIB AT MACK HATCHER PARKWAY									
OCT 2001					MAY 2002				
05...	1422	.02	628	20.0	13...	1049	25	413	18.5
16...	1037	1.6	626	16.0	JUL				
NOV					15...	1025	.08	487	22.0
16...	1410	.04	578	14.0	AUG				
JAN 2002					23...	1125	.27	496	24.5
17...	0935	.28	583	10.0	SEP				
MAR					26...	1355	30	192	19.5
13...	0950	.74	550	12.5					
03432387 SOUTH PRONG SPENCER CREEK NEAR FRANKLIN, TN									
OCT 2001					MAY 2002				
09...	1335	.34	775	17.0	13...	1155	49	685	18.0
NOV					JUL				
16...	1142	.19	730	12.0	15...	0941	.86	628	21.5
JAN 2002					AUG				
17...	1050	.93	587	10.0	20...	1250	.16	684	24.5
MAR									
13...	0800	2.3	521	11.0					

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03432390 SPENCER CREEK NEAR FRANKLIN, TN									
OCT 2001					MAR 2002				
09...	1235	3.4	706	15.5	13...	1100	9.9	588	12.0
NOV					MAY				
16...	1254	2.0	727	13.0	13...	1325	111	432	18.5
29...	1058	944	160	15.0	JUL				
DEC					15...	1235	6.2	613	22.0
11...	1315	29	593	13.5	AUG				
JAN 2002					20...	1140	3.6	665	24.0
17...	1240	4.4	644	9.5					
03432400 HARPETH RIVER BELOW FRANKLIN, TN									
OCT 2001					MAY 2002				
09...	1238	38	461	16.0	29...	1021	80	439	20.5
NOV					JUN				
30...	1155	4900	214	14.5	28...	1255	18	539	24.0
JAN 2002					JUL				
17...	1420	76	458	7.5	29...	1145	20	511	26.0
MAR					AUG				
18...	1035	7580	183	14.0	26...	1220	43	461	25.0
19...	1200	2360	310	13.5					
APR									
29...	1145	126	379	18.5					
03433500 HARPETH RIVER AT BELLEVUE, TN									
OCT 2001					MAY 2002				
04...	1335	15	513	19.5	22...	1445	302	403	16.5
NOV					JUL				
20...	1236	40	726	11.5	10...	1400	32	416	30.0
JAN 2002					30...	1135	30	350	29.5
10...	1230	179	401	2.5					
MAR									
28...	1430	1420	373	12.0					
03434500 HARPETH RIVER NEAR KINGSTON SPRINGS, TN									
OCT 2001					MAR 2002				
02...	1650	58	348	19.5	22...	1245	544	352	16.5
NOV					27...	1434	2330	290	12.5
20...	0933	107	507	9.5	JUL				
JAN 2002					10...	1130	186	328	28.5
10...	1030	314	401	5.5					
03435305 RED RIVER BELOW HIGHWAY 161 NEAR BARREN PLAIN, TN									
OCT 2001					MAR 2002				
04...	0840	29	467	16.0	21...	1433	4630	258	13.0
NOV					MAY				
20...	1300	81	496	10.5	14...	1100	2340	223	16.5
JAN 2002					JUL				
16...	1215	339	432	7.5	16...	1215	266	356	23.5

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
CUMBERLAND RIVER BASIN--Continued									
03435970 MILLERS CREEK AT TURNERSVILLE									
OCT 2001					MAR 2002				
03...	0850	.51	476	14.5	20...	0922	706	156	12.5
NOV					MAY				
19...	1447	2.7	437	12.5	14...	1530	121	309	15.5
JAN 2002					JUL				
16...	0925	8.5	378	4.5	16...	0910	3.4	418	22.0
FEB									
20...	1025	14	351	12.5					
03436100 RED RIVER AT PORT ROYAL, TN									
OCT 2001					MAR 2002				
03...	1710	80	468	19.0	21...	1201	11000	245	12.5
NOV					MAY				
20...	1020	170	478	9.5	13...	1100	2450	238	19.0
JAN 2002					JUL				
15...	1530	590	348	6.0	16...	1015	494	344	25.0
03436690 YELLOW CREEK AT ELLIS MILLS, TN									
OCT 2001					MAR 2002				
03...	1140	19	308	20.0	25...	1330	337	221	15.0
NOV					MAY				
19...	1215	32	297	13.5	15...	1200	560	212	17.0
JAN 2002					JUL				
15...	1200	80	262	8.5	15...	1045	39	277	25.5
TENNESSEE RIVER BASIN									
03455000 FRENCH BROAD RIVER NEAR NEWPORT, TN									
NOV 2001					AUG 2002				
08...	1340	759	98	10.5	20...	1740	665	159	27.0
JUN 2002									
20...	1245	805	96	26.0					
03461500 PIGEON RIVER AT NEWPORT, TN									
NOV 2001					AUG 2002				
05...	1050	196	394	12.0	20...	1400	255	336	25.5
APR 2002									
18...	1125	449	154	16.0					
03465500 NOLICHUCKY RIVER AT EMBREEVILLE, TN									
OCT 2001					AUG 2002				
09...	1150	316	100	11.5	28...	1140	459	108	23.5
APR 2002					SEP				
24...	1345	771	61	15.5	11...	1240	123	116	22.5
JUL									
11...	1505	346	88	27.0					

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03466208 BIG LIMESTONE CREEK NEAR LIMESTONE, TN									
NOV 2001					MAY 2002				
19...	1140	32	459	10.0	06...	1125	50	472	17.0
20...	1445	21	434	11.5	29...	1330	24	449	20.5
DEC					JUN				
11...	1130	53	464	9.5	20...	1430	16	420	22.5
JAN 2002					JUL				
22...	1500	50	464	7.0	02...	1135	22	443	24.0
31...	1200	114	494	12.5	25...	1500	12	427	24.0
FEB					AUG				
22...	1430	43	455	8.0	08...	1230	8.6	442	22.5
MAR					21...	1340	13	425	24.5
21...	1315	155	431	13.5	SEP				
22...	0945	170	468	10.0	04...	1500	9.2	434	24.0
APR									
18...	1445	55	430	21.0					
03467609 NOLICHUCKY RIVER NEAR LOWLAND									
OCT 2001					MAY 2002				
01...	1230	747	234	16.5	30...	1400	1080	194	24.0
NOV					31...	1100	940	196	24.0
20...	1130	484	235	16.0	JUN				
JAN 2002					20...	1100	601	199	24.5
22...	1100	3350	141	5.5	JUL				
FEB					25...	1115	746	239	26.0
22...	1045	1300	220	8.0	SEP				
MAR					04...	1030	352	207	27.0
20...	1300	11300	142	13.5	11...	1230	239	220	25.0
APR									
18...	1030	1600	191	20.5					
03469175 LITTLE PIGEON RIVER ABOVE SEVIERVILLE, TN									
DEC 2001					MAY 2002				
20...	1330	248	65	10.0	21...	1245	208	92	13.0
MAR 2002					SEP				
13...	1152	136	97	9.0	13...	1150	15	138	22.0
03491000 BIG CREEK NEAR ROGERSVILLE, TN									
DEC 2001					SEP 2002				
11...	1330	17	390	10.0	12...	1335	1.3	408	21.5
MAY 2002									
16...	1100	39	294	15.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03497300 LITTLE RIVER ABOVE TOWNSEND, TN									
JAN 2002					JUL 2002				
14...	1255	131	16	3.0	18...	1030	75	21	22.0
MAR					SEP				
15...	1055	197	17	10.0	05...	1355	58	21	23.0
MAY									
17...	1025	216	17	14.5					
03498500 LITTLE RIVER NEAR MARYVILLE, TN									
MAR 2002					SEP 2002				
12...	1400	246	118	10.5	04...	1110	88	109	24.5
MAY									
29...	1025	325	90	17.5					
03498850 LITTLE RIVER NEAR ALCOA, TN									
MAR 2002					SEP 2002				
11...	1435	215	137	11.0	05...	1050	78	145	24.5
MAY									
29...	1325	338	106	19.0					
03518500 TELLICO RIVER AT TELLICO PLAINS, TN									
MAR 2002					SEP 2002				
28...	1440	277	21	11.5	06...	1430	54	28	26.0
JUL									
31...	1500	92	26	27.0					
03528000 CLINCH RIVER ABOVE TAZEWEEL, TN									
NOV 2001					AUG 2002				
13...	1145	222	432	9.0	13...	1530	169	316	29.0
JUN 2002					SEP				
06...	1155	561	342	27.0	23...	1650	238	373	24.5
03532000 POWELL RIVER NEAR ARTHUR, TN									
JUN 2002					SEP 2002				
05...	1100	355	402	25.0	23...	1320	399	401	22.0
AUG									
13...	1125	115	386	25.5					

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03535400 BEAVER CREEK AT SOLWAY, TN									
NOV 2001					JUL 2002				
19...	1550	22	489	12.0	08...	1340	27	379	24.0
FEB 2002					AUG				
12...	1135	148	353	8.5	15...	1410	21	456	23.5
APR					SEP				
29...	1240	76	366	17.0	17...	1545	32	468	22.5
03538235 EAST FORK POPLAR CREEK AT BEAR CREEK ROAD AT OAK RIDGE, TN									
DEC 2001					AUG 2002				
03...	1210	11	340	16.5	05...	1030	11	318	18.5
APR 2002					SEP				
02...	1105	15	350	15.5	03...	1045	11	321	21.0
03539600 DADDYS CREEK NEAR HEBBERTSBURG, TN									
DEC 2001					JUN 2002				
04...	1145	74	85	8.0	26...	1125	3.7	138	25.5
APR 2002					AUG				
05...	1200	312	60	9.5	26...	1140	.83	140	25.0
03539778 CLEAR CREEK AT LILLY BRIDGE NEAR LANCING, TN									
NOV 2001					JUN 2002				
19...	1045	10	87	9.0	07...	1130	143	47	23.5
JAN 2002					19...	1100	19	54	23.0
16...	1115	142	47	2.0	JUL				
FEB					24...	1145	36	46	25.5
21...	1300	196	41	6.5	AUG				
MAR					23...	1115	3.0	91	26.5
19...	1230	2110	34	11.5	SEP				
					03...	1200	2.7	76	27.0
03540500 EMORY RIVER AT OAKDALE, TN									
JUN 2002					SEP 2002				
25...	1125	23	85	28.5	03...	1130	9.3	119	28.0
03566000 HIWASSEE RIVER AT CHARLESTON, TN									
OCT 2001					AUG 2002				
22...	1735	3400	103	18.5	27...	1305	1790	56	22.0
MAY 2002									
07...	1250	2870	100	17.5					
035661285 NORTH MOUSE CREEK NEAR ROCKY MT HOLLOW NEAR ATHENS, TN									
NOV 2001					JUL 2002				
14...	1520	14	352	10.5	31...	1220	22	359	22.5
MAR 2002					SEP				
28...	1150	102	287	9.0	06...	1030	17	350	20.5
JUN									
27...	1620	28	321	21.5					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03571000 SEQUATCHIE RIVER NEAR WHITWELL, TN									
OCT 2001					MAY 2002				
02...	0755	66	363	15.5	29...	1435	370	228	19.5
NOV					JUL				
07...	1335	52	348	13.0	17...	1005	145	391	24.5
JAN 2002					AUG				
08...	1230	224	153	1.5	21...	1320	63	265	27.0
APR									
12...	1335	5160	129	13.0					
03578000 ELK RIVER NEAR PELHAM, TN									
OCT 2001					JUL 2002				
01...	1315	22	231	14.0	01...	1115	11	263	23.0
NOV					17...	1300	4.9	278	24.5
07...	1015	14	233	10.5	26...	1357	3.3	306	24.0
DEC					AUG				
14...	1125	2130	154	15.5	12...	1100	1.7	302	24.0
MAY 2002					20...	1300	4.5	260	26.5
29...	1040	36	193	16.0	SEP				
					20...	0700	1.9	309	23.0
03579040 SPRING CREEK OFF SPRING CREEK ROAD AT AEDC NEAR MANCHESTER									
FEB 2002					JUN 2002				
04...	1100	14	83	11.5	03...	1856	10	105	17.0
MAR					JUL				
18...	1110	391	36	12.5	17...	1655	9.0	109	18.5
MAY					AUG				
29...	1255	11	105	16.5	22...	1110	7.4	77	17.5
03584020 RICHLAND CREEK AT HWY 64 NEAR PULASKI, TN									
OCT 2001					MAY 2002				
03...	1132	95	320	16.0	15...	1230	407	236	16.5
NOV					17...	1019	310	246	18.0
15...	1205	101	313	11.0	JUL				
JAN 2002					23...	1233	80	255	25.5
17...	1358	213	274	8.0	AUG				
MAR					12...	1005	38	257	23.0
12...	1251	1410	244	9.5					
03588500 SHOAL CREEK AT IRON CITY, TN									
OCT 2001					MAR 2002				
03...	0840	187	213	16.5	12...	0853	2070	112	9.5
NOV					MAY				
15...	0902	191	132	10.5	15...	0931	415	95	16.5
30...	1447	13200	71	13.5	JUL				
JAN 2002					23...	1005	191	121	25.0
08...	1550	394	90	7.0					
03593500 TENNESSEE RIVER AT SAVANNAH, TN									
OCT 2001					AUG 2002				
24...	1500	48400	189	17.5	29...	1330	1260	164	29.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03595100 LITTLE DUCK RIVER SOUTHEAST OF MANCHESTER, TN									
MAR 2002					JUN 2002				
18...	1405	665	40	14.0	04...	0745	3.3	185	20.5
APR					JUL				
01...	1805	177	44	14.5	18...	0825	1.8	233	20.0
MAY					AUG				
29...	0850	3.5	205	16.5	22...	1610	1.5	191	25.0
03596100 CRUMPTON CREEK AT RUTLEDGE FALLS, TN									
FEB 2002					JUL 2002				
19...	1535	21	161	13.5	17...	1930	7.2	179	19.0
MAR					AUG				
18...	1545	1020	58	12.0	22...	1415	5.7	158	19.5
MAY									
29...	1550	12	162	16.5					
03597210 GARRISON FORK ABOVE L&N RAILROAD AT WARTRACE, TN									
OCT 2001					MAR 2002				
01...	1033	6.3	337	15.0	13...	1012	125	404	11.0
NOV					MAY				
14...	1253	11	353	10.5	16...	0934	142	292	16.5
JAN 2002					AUG				
15...	0951	43	396	5.0	26...	1027	17	270	25.0
03597590 WARTRACE CREEK BELOW COUNTY ROAD AT WARTRACE, TN									
OCT 2001					MAR 2002				
01...	1238	.70	545	14.5	13...	0802	79	450	10.5
NOV					MAY				
14...	1029	1.8	485	10.5	09...	1318	28	484	20.0
JAN 2002					JUL				
15...	0808	14	465	4.0	17...	0945	.61	345	25.5
23...	1530	7090	78	12.5					
03598000 DUCK RIVER NEAR SHELBYVILLE, TN									
OCT 2001					MAR 2002				
04...	0835	194	310	18.5	14...	1548	437	411	13.0
NOV					MAY				
06...	1405	403	172	15.0	16...	1558	514	275	21.0
JAN 2002					JUL				
15...	1430	262	342	6.5	16...	1030	236	180	28.0
25...	1235	18900	145	9.0					

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
TENNESSEE RIVER BASIN--Continued									
03599500 DUCK RIVER AT COLUMBIA, TN									
OCT 2001					MAR 2002				
05...	0930	228	319	18.5	15...	1212	1970	344	12.5
NOV					MAY				
16...	1025	418	299	11.0	22...	1043	688	316	17.5
JAN 2002					JUL				
09...	1035	790	353	3.5	11...	1200	398	220	29.0
25...	1633	46700	135	11.5					
03601990 DUCK RIVER AT HWY 100 AT CENTERVILLE, TN									
OCT 2001					MAR 2002				
02...	1310	575	275	19.0	27...	1043	6890	228	11.5
NOV					MAY				
19...	0930	716	266	12.0	16...	1020	4650	275	18.0
JAN 2002					JUL				
14...	1035	1330	230	3.5	15...	1555	1570	238	28.0
26...	1248	54400	130	11.0					
30...	1115	10900	176	11.5					
03602219 PINEY RIVER AT CEDAR HILL, TN									
OCT 2001					MAY 2002				
02...	0835	7.2	290	14.5	16...	1430	97	224	18.5
NOV					JUL				
19...	1445	14	280	12.5	15...	1300	18	270	24.0
JAN 2002									
14...	1430	36	242	10.0					
03602500 PINEY RIVER AT VERNON, TN									
OCT 2001					MAR 2002				
02...	1035	58	258	15.5	27...	1302	736	166	11.5
NOV					MAY				
19...	1115	78	256	12.5	16...	1300	489	206	17.0
JAN 2002					JUL				
14...	1235	169	231	8.5	11...	1445	179	228	23.0
03604000 BUFFALO RIVER NEAR FLAT WOODS, TN									
FEB 2002					SEP 2002				
20...	1400	764	62	11.0	19...	1115	203	104	25.0
AUG									
07...	1200	233	104	26.5					
03605078 CYPRESS CREEK AT CAMDEN, TN									
NOV 2001					MAY 2002				
14...	1050	5.6	143	11.0	15...	0835	17	96	16.0
FEB 2002					JUN				
21...	1045	37	66	9.0	25...	1215	3.2	137	25.0
APR					AUG				
04...	0845	39	58	10.0	07...	1615	1.1	112	--
03606500 BIG SANDY RIVER AT BRUCETON, TN									
OCT 2001					JUN 2002				
04...	1055	43	33	16.5	26...	1100	107	36	23.5
FEB 2002					AUG				
20...	1215	507	39	11.0	08...	0900	56	41	22.0
APR					SEP				
04...	1200	284	33	12.0	19...	0900	65	41	23.0
MAY									
15...	1130	169	56	17.0					

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OBION RIVER BASIN									
07024305 BEAVER CREEK AT HWY 22 BYPASS NEAR HUNTINGDON, TN									
OCT 2001					JUN 2002				
03...	1730	26	54	17.5	26...	1730	31	55	24.0
NOV					AUG				
13...	1530	36	85	11.5	08...	1045	18	60	21.5
APR 2002					21...	1245	43	78	--
04...	1520	75	56	13.0	SEP				
MAY					18...	1630	31	70	23.0
15...	0900	55	80	17.0					
07024500 SOUTH FORK OBION RIVER NEAR GREENFIELD, TN									
OCT 2001					MAY 2002				
03...	1430	120	46	19.0	14...	1530	662	80	18.0
NOV					JUN				
13...	1325	166	60	13.0	25...	1530	147	56	26.5
APR 2002					SEP				
03...	1535	2190	54	15.5	18...	1305	168	61	23.0
07025400 NORTH FORK OBION RIVER NEAR MARTIN, TN									
APR 2002					AUG 2002				
02...	1000	768	63	15.0	07...	1500	150	85	27.0
JUL					SEP				
10...	1200	155	56	26.0	26...	1600	248	96	20.0
22...	1300	10400	58	22.0	07...	1030	679	85	27.0
07027720 SOUTH FORK FORKED DEER RIVER NEAR OWL CITY, TN									
OCT 2001					MAY 2002				
09...	1400	242	94	15.5	02...	1145	468	85	20.0
FEB 2002					JUN				
08...	1100	1450	79	5.5	13...	1005	462	88	25.0
MAR					JUL				
27...	1245	4120	57	--	29...	1050	243	88	26.5
APR									
10...	1145	1160	69	15.5					
07028960 MIDDLE FORK FORKED DEER RIVER NEAR FAIRVIEW									
OCT 2001					JUN 2002				
03...	1200	56	38	16.5	25...	1400	71	59	23.0
NOV					AUG				
13...	1030	78	47	12.5	21...	1515	96	49	29.0
APR 2002					SEP				
02...	1400	1430	45	15.5	18...	1100	135	50	22.0
HATCHIE RIVER BASIN									
07029500 HATCHIE RIVER AT BOLIVAR, TN									
JAN 2002					JUN 2002				
11...	1515	1930	76	7.0	26...	1215	444	74	29.0
MAY					SEP				
01...	1245	1510	70	20.0	18...	1400	350	54	25.0

MISCELLANEOUS TEMPERATURE MEASUREMENTS AND FIELD DETERMINATIONS
WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002--Continued

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
LOOSAHATCHIE RIVER BASIN									
07030240 LOOSAHATCHIE RIVER NEAR ARLINGTON, TN									
FEB 2002					JUL 2002				
19...	0930	144	--	12.5	23...	1300	123	59	23.5
APR					SEP				
11...	0930	157	66	16.5	25...	1045	108	62	--
MAY									
06...	1345	165	65	21.0					
WOLF RIVER BASIN									
07030392 WOLF RIVER AT LAGRANGE, TN									
NOV 2001					MAY 2002				
14...	1000	83	38	12.0	02...	1130	265	48	21.0
DEC					08...	1200	306	38	22.0
05...	1445	466	30	12.5	JUN				
JAN 2002					28...	1040	160	47	23.0
09...	1230	291	32	4.5	JUL				
FEB					15...	1400	250	37	24.0
04...	1500	332	32	7.5	AUG				
MAR					08...	1015	111	43	22.0
12...	1200	1120	28	11.0	21...	1000	122	37	23.5
APR									
04...	1400	409	35	13.0					
24...	1230	202	49	19.5					
07030500 WOLF RIVER AT ROSSVILLE, TN									
OCT 2001					AUG 2002				
02...	1200	162	38	16.5	16...	1315	793	47	24.5
FEB 2002					19...	1430	550	49	29.0
20...	1200	1450	22	12.5					
JUN									
28...	1410	277	45	25.0					
07031650 WOLF RIVER AT GERMANTOWN, TN									
NOV 2001					JUL 2002				
14...	1200	311	55	13.5	02...	1225	295	54	27.5
JAN 2002					AUG				
04...	1345	550	48	4.0	15...	1345	1360	47	24.0
MAR									
28...	1300	1140	49	13.0					
07031692 FLETCHER CREEK AT SYCAMORE VIEW ROAD AT MEMPHIS									
OCT 2001					APR 2002				
12...	1450	51	84	20.0	24...	1500	8.4	180	22.5
NOV					MAY				
13...	1800	28	114	11.0	06...	1430	4.4	111	19.5
DEC					08...	1430	2.7	119	23.5
05...	1230	27.0	197	11.0	JUN				
JAN 2002					11...	1530	9.8	108	26.5
09...	0730	5.4	103	3.5	28...	1600	18	58	26.0
FEB					JUL				
04...	1700	5.1	118	8.5	15...	1730	7.4	95	27.5
MAR					22...	1545	5.6	76	28.0
12...	1015	703	52	7.5	AUG				
26...	1430	55	85	5.0	08...	0730	4.6	112	26.5
07031740 WOLF RIVER AT HOLLYWOOD ST AT MEMPHIS, TN									
OCT 2001					MAY 2002				
22...	1240	593	53	17.5	07...	1320	1860	50	21.0
FEB 2002					AUG				
22...	1045	1790	42	10.5	15...	1130	1770	61	25.0
APR					SEP				
01...	1110	6290	61	13.0	17...	1115	692	80	25.0
NONCONNAH RIVER BASIN									
07032200 NONCONNAH CREEK NEAR GERMANTOWN, TN									
NOV 2001					MAR 2002				
14...	0830	.56	162	12.0	28...	1015	31	92	11.5

In 1993, the U.S. Geological Survey (USGS), in cooperation with the Tennessee Department of Transportation (TDOT), began monitoring a degraded wetland area near Millington, Shelby County, Tennessee. The monitoring effort was designed to define land-surface inundation and saturation conditions prior to the implementation of a plan to restore the wetland area to a more natural condition. Restoring and preserving wetlands have become an important initiative in recent years as indicated by the no net loss of wetlands objective of Section 404 of the Clean Water Act (U.S. Congress, 1977). In certain instances, the construction of buildings, roads, and other manmade structures have disrupted natural wetlands and their functions. The Millington site is located along a channelized reach of Big Creek, east of State Route 240, and near the southeastern boundary of the Naval Support Activity Midlands, Millington (fig. 7). As part of the monitoring effort, 11 wells were augered approximately 2 feet into poorly drained soils, which include the Calloway silt loam, Falaga silt loam, Waverly silt loam, and Henry silt loam.

Additional information on this study area may be obtained from the USGS at 640 Grassmere Park, Suite 100, Nashville, TN 37211 or by telephone (615) 837-4700.

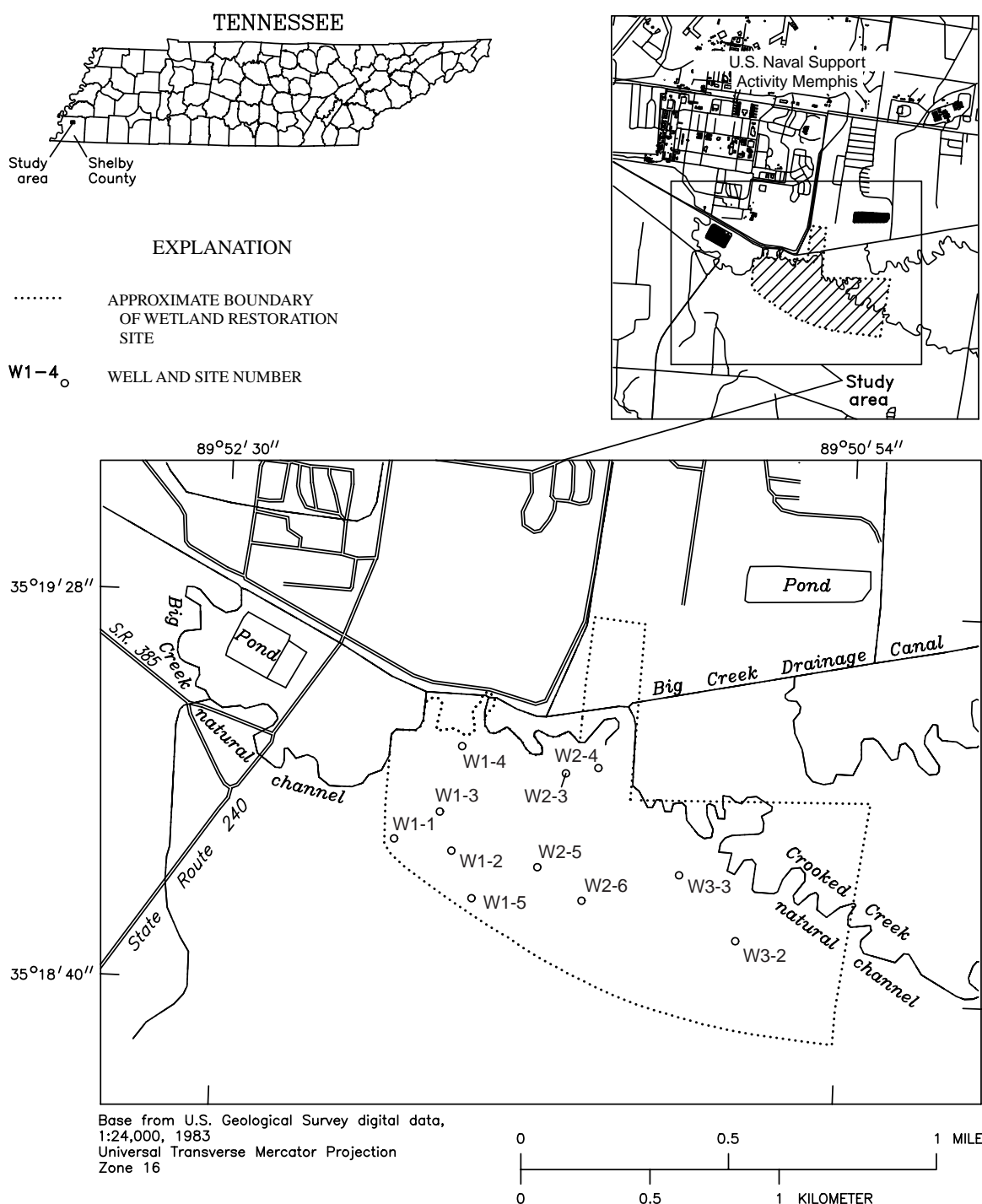


Figure 7. Location of study area and data-collection sites.

MILLINGTON WETLAND

351859089520101. Local number, Sh:V-60 (W1-1).

LOCATION.--Lat 35°18'59", long 89°52'01", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder--60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing approximately 3.60 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.22 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--June 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.22	2.22	0.43	1.01	0.38	0.86	0.31	0.64	1.57	2.22	2.22	2.22
2	2.22	2.22	0.56	1.12	0.47	0.68	0.38	1.01	1.98	2.22	2.22	2.22
3	2.22	2.22	0.62	1.17	0.46	0.62	0.57	0.76	2.22	2.22	2.22	2.22
4	2.22	2.22	0.68	1.33	0.52	0.80	0.72	0.33	2.22	2.22	2.22	2.22
5	2.22	2.22	0.77	1.28	0.57	0.87	0.84	0.54	2.22	2.22	2.22	2.22
6	2.22	2.22	0.67	0.58	0.40	0.95	0.95	0.73	2.22	2.22	2.22	2.22
7	2.22	2.22	0.36	0.37	0.22	0.98	1.03	1.06	2.22	2.22	2.22	2.22
8	2.22	2.22	0.39	0.45	0.31	1.02	0.95	1.39	2.22	2.22	2.22	2.22
9	2.22	2.22	0.52	0.47	0.37	0.60	0.63	1.61	2.22	2.22	2.22	2.22
10	2.22	2.22	0.57	0.50	0.45	0.46	0.80	0.80	2.22	2.22	2.22	2.22
11	2.08	2.22	0.62	0.36	0.55	0.39	0.93	0.52	2.22	2.22	2.22	2.22
12	1.98	2.22	0.46	0.43	0.55	0.17	1.08	0.85	2.22	2.22	2.22	2.22
13	1.78	2.22	0.23	0.49	0.63	0.30	1.23	0.50	2.22	2.22	2.22	2.22
14	0.79	2.22	0.21	0.53	0.69	0.37	1.35	0.60	2.22	2.22	2.22	2.22
15	1.39	2.22	0.38	0.64	0.69	0.44	1.54	0.96	2.22	2.22	2.22	2.22
16	1.89	2.22	0.32	0.66	0.52	0.51	1.76	1.33	2.22	2.22	2.22	2.22
17	2.17	2.22	0.03	0.69	0.62	0.0	1.95	0.81	2.22	2.22	2.22	2.22
18	2.22	2.22	0.22	0.33	0.69	0.09	2.13	0.54	2.22	2.22	2.22	2.22
19	2.22	2.22	0.40	0.26	0.64	0.19	2.21	0.87	2.22	2.22	2.22	2.22
20	2.22	2.22	0.56	0.38	0.28	0.20	2.22	1.21	2.22	2.22	2.22	1.77
21	2.22	2.22	0.60	0.46	0.42	0.35	2.22	1.59	2.22	2.22	2.22	1.98
22	2.22	2.22	0.58	0.49	0.52	0.47	2.22	1.79	2.22	2.22	2.22	2.22
23	2.22	2.22	0.29	0.34	0.56	0.48	2.22	2.02	2.22	2.22	2.22	2.22
24	2.22	2.22	0.44	0.22	0.60	0.50	2.22	2.21	2.22	2.22	2.22	2.22
25	2.22	2.22	0.52	0.38	0.62	0.54	2.22	2.22	2.22	2.22	2.22	2.22
26	2.22	2.17	0.56	0.45	0.59	0.30	2.22	2.22	2.22	2.22	2.22	1.96
27	2.22	0.42	0.59	0.49	0.72	0.37	2.22	2.22	2.22	2.22	2.22	0.46
28	2.22	0.22	0.59	0.49	0.82	0.42	2.22	2.22	2.22	2.22	2.22	1.37
29	2.22	-0.28	0.66	0.48	---	0.40	2.22	0.66	2.22	2.22	2.22	1.97
30	2.22	0.15	0.80	0.49	---	0.17	1.60	0.65	2.22	2.22	2.22	2.22
31	2.22	---	0.88	0.48	---	0.19	---	1.03	---	2.22	2.22	---

WTR YR 2002 HIGHEST -.34 NOV 29, 2001

LOWEST 2.22 MANY DAYS

MILLINGTON WETLAND--Continued

351859089515501. Local number, Sh:V-61 (W1-2).

LOCATION.--Lat 35°18'59", long 89°51'55", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing 3.00 ft above land-surface datum.

REMARKS.--Missing record, Nov. 6 to Nov. 12 and March 4 to April 2. Bottom of well, 2.24 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	0.65	-0.07	0.03	-0.09	-0.07	---	-0.09	0.20	2.24	2.24	2.24
2	2.24	0.82	-0.03	0.04	-0.06	-0.11	---	-0.02	0.93	2.24	2.24	2.24
3	2.24	0.59	-0.01	0.05	-0.06	-0.10	1.41	-0.05	1.90	2.24	2.24	2.24
4	2.24	0.49	0.0	0.07	-0.05	---	1.43	-0.13	2.24	2.24	2.24	2.24
5	2.24	0.61	0.02	0.05	-0.03	---	1.45	-0.07	2.24	2.24	2.24	2.24
6	2.24	---	-0.03	-0.11	-0.06	---	1.47	-0.03	2.24	2.24	2.24	2.24
7	2.24	---	-0.16	-0.09	-0.13	---	1.49	0.08	2.24	2.24	2.24	2.24
8	2.24	---	-0.14	-0.07	-0.11	---	1.31	0.29	2.24	2.24	2.24	2.24
9	2.24	---	-0.07	-0.06	-0.09	---	0.60	0.60	2.24	2.24	2.24	2.24
10	2.24	---	-0.05	-0.06	-0.07	---	0.02	0.16	2.24	2.24	2.24	2.24
11	0.25	---	-0.04	-0.08	-0.06	---	-0.02	-0.06	2.24	2.24	2.24	2.24
12	-0.10	---	-0.21	-0.07	-0.05	---	0.00	0.03	2.24	2.24	2.24	2.24
13	-0.18	1.92	-0.23	-0.05	-0.04	---	0.02	-0.10	2.24	2.24	2.24	2.24
14	-0.18	1.95	-0.25	-0.04	-0.02	---	0.05	-0.07	2.24	2.24	2.24	2.24
15	-0.09	2.00	-0.10	-0.02	-0.03	---	0.09	0.01	2.24	2.24	2.24	2.24
16	-0.03	2.05	-0.26	-0.01	-0.05	---	0.15	0.20	2.24	2.24	2.24	2.24
17	0.03	2.11	-0.27	-0.02	-0.04	---	0.25	0.04	2.24	2.24	2.24	2.24
18	0.07	2.16	-0.11	-0.10	-0.02	---	0.43	-0.09	2.24	2.24	2.24	2.24
19	0.13	2.20	-0.08	-0.19	-0.07	---	0.84	-0.02	2.24	2.24	2.24	2.09
20	0.22	2.23	-0.05	-0.10	-0.16	---	1.35	0.07	2.24	2.24	2.24	-0.20
21	0.36	2.24	-0.04	-0.08	-0.09	---	1.83	0.28	2.24	2.24	2.24	0.04
22	0.60	2.24	-0.04	-0.06	-0.07	---	1.99	0.74	2.24	2.24	2.24	0.69
23	0.88	2.24	-0.22	-0.08	-0.07	---	2.10	1.30	2.24	2.24	2.24	1.82
24	0.99	1.26	-0.10	-0.22	-0.06	---	2.20	1.92	2.24	2.24	2.24	2.24
25	-0.05	0.80	-0.07	-0.10	-0.06	---	2.24	2.21	2.24	2.24	---	2.24
26	0.02	0.73	-0.06	-0.08	-0.07	---	2.24	2.24	2.24	2.24	2.24	1.64
27	0.06	-0.21	-0.05	-0.06	-0.06	---	2.24	2.24	2.24	2.24	2.24	-0.14
28	0.13	-0.28	-0.04	-0.06	-0.08	---	2.24	2.23	2.24	2.24	2.24	0.03
29	0.22	-0.43	-0.02	-0.05	---	---	2.24	-0.10	2.24	2.24	2.24	0.17
30	0.35	-0.14	0.00	-0.05	---	---	1.44	-0.07	2.24	2.24	2.24	0.41
31	0.50	---	0.01	-0.06	---	---	---	0.02	---	2.24	2.24	---

WTR YR 2002 HIGHEST -.61 NOV 28, 2001

LOWEST 2.22 MANY DAYS

MILLINGTON WETLAND--Continued

351906089515601. Local number, Sh:V-62 (W1-3).

LOCATION.--Lat 35°19'06", long 89°51'56", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.80 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.10 ft below land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.10	2.10	0.38	1.01	0.20	0.90	0.21	0.68	1.49	2.10	2.10	2.10
2	2.10	2.10	0.58	1.13	0.28	0.71	0.27	1.23	1.72	2.10	2.10	2.10
3	2.10	2.10	0.81	1.18	0.28	0.45	0.43	0.91	1.89	2.10	2.10	2.10
4	2.10	2.10	1.01	1.30	0.33	0.67	0.63	0.23	2.04	2.10	2.10	2.10
5	2.10	2.10	1.19	1.32	0.43	0.80	0.85	0.41	2.10	2.10	2.10	2.10
6	2.10	2.10	1.03	0.29	0.30	0.91	1.02	0.73	2.10	2.10	2.10	2.10
7	2.10	2.10	0.26	0.19	0.15	0.96	1.17	1.19	2.10	2.10	2.10	2.10
8	2.10	2.10	0.21	0.24	0.19	0.99	1.12	1.51	2.10	2.10	2.10	2.10
9	2.10	2.10	0.30	0.27	0.22	0.44	0.55	1.72	2.10	2.10	2.10	2.10
10	2.10	2.10	0.40	0.28	0.28	0.27	0.73	0.77	2.10	2.10	2.10	2.10
11	1.31	2.10	0.51	0.18	0.37	0.27	0.92	0.44	2.10	2.10	2.10	2.10
12	1.19	2.10	0.25	0.23	0.43	0.16	1.07	0.90	2.10	2.10	2.10	2.10
13	1.08	2.10	0.16	0.27	0.55	0.20	1.21	0.36	2.10	2.10	2.10	2.10
14	0.70	2.10	0.17	0.33	0.67	0.26	1.35	0.52	2.10	2.10	2.10	2.10
15	1.44	2.10	0.23	0.45	0.72	0.32	1.47	1.04	2.10	2.10	2.10	2.10
16	1.84	2.10	0.16	0.54	0.42	0.35	1.58	1.48	2.10	2.10	2.10	2.10
17	2.06	2.10	0.15	0.55	0.54	0.13	1.69	0.81	2.10	2.10	2.10	2.10
18	2.10	2.10	0.21	0.18	0.69	0.16	1.78	0.43	2.10	2.10	2.10	2.10
19	2.10	2.10	0.25	0.16	0.68	0.16	1.84	0.93	2.10	2.10	2.10	2.10
20	2.10	2.10	0.35	0.20	0.18	0.15	1.89	1.39	2.10	2.10	2.10	1.36
21	2.10	2.10	0.44	0.24	0.26	0.23	1.94	1.65	2.10	2.10	2.10	1.34
22	2.10	2.10	0.41	0.27	0.36	0.33	1.98	1.81	2.10	2.10	2.10	1.86
23	2.10	2.10	0.17	0.17	0.45	0.41	2.02	1.89	2.10	2.10	2.10	2.09
24	2.10	2.10	0.23	0.15	0.54	0.47	2.07	1.97	2.10	2.10	2.10	2.10
25	2.09	2.10	0.29	0.21	0.62	0.53	2.10	2.07	2.10	2.10	2.10	2.10
26	2.10	2.01	0.35	0.26	0.46	0.18	2.10	2.10	2.10	2.10	2.10	1.65
27	2.10	0.50	0.41	0.31	0.65	0.25	2.10	2.10	2.10	2.10	2.10	0.67
28	2.10	0.38	0.46	0.34	0.80	0.32	2.10	2.10	2.10	2.10	2.10	1.42
29	2.10	0.10	0.57	0.33	---	0.32	2.10	0.70	2.10	2.10	2.10	1.74
30	2.10	0.23	0.75	0.34	---	0.14	1.21	0.64	2.10	2.10	2.10	1.96
31	2.10	---	0.87	0.31	---	0.15	---	1.12	---	2.10	2.10	---

WTR YR 2002 HIGHEST 0.05 NOV 29, 2001

LOWEST 2.10 MANY DAYS

MILLINGTON WETLAND--Continued

351912089515301. Local number, Sh:V-63 (W1-4).

LOCATION.--Lat 35°19'12", long 89°51'53", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.27 below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.27	2.27	0.18	0.52	0.14	0.28	0.08	0.07	0.94	2.27	2.27	2.27
2	2.27	2.27	0.30	0.60	0.18	0.23	0.10	0.13	1.27	2.27	2.27	2.27
3	2.27	2.27	0.43	0.66	0.18	0.16	0.12	0.05	1.45	2.27	2.27	2.27
4	2.27	2.27	0.54	0.75	0.19	0.26	0.15	0.01	1.59	2.27	2.27	2.27
5	2.27	2.27	0.66	0.81	0.23	0.28	0.18	0.06	1.70	2.27	2.27	2.27
6	2.27	2.27	0.65	0.28	0.19	0.30	0.21	0.13	1.76	2.27	2.27	2.27
7	2.27	2.27	0.28	0.13	0.09	0.30	0.24	0.29	1.83	2.27	2.27	2.27
8	2.27	2.27	0.17	0.19	0.11	0.29	0.18	0.54	1.88	2.27	2.27	2.27
9	2.27	2.27	0.26	0.20	0.14	0.14	0.10	0.81	1.94	2.27	2.27	2.27
10	2.27	2.27	0.34	0.23	0.16	0.12	0.14	0.26	1.99	2.27	2.27	2.27
11	1.22	2.27	0.38	0.14	0.18	0.12	0.18	0.12	2.04	2.27	2.27	2.27
12	0.86	2.27	0.36	0.19	0.20	0.04	0.19	0.28	2.09	2.27	2.27	2.27
13	1.25	2.27	0.04	0.22	0.21	0.11	0.23	0.06	2.14	2.27	2.27	2.27
14	0.54	2.27	0.04	0.24	0.25	0.14	0.27	0.08	2.19	2.27	2.27	2.27
15	1.28	2.27	0.10	0.30	0.26	0.15	0.33	0.24	2.22	2.27	2.27	2.27
16	1.74	2.27	0.12	0.34	0.17	0.15	0.41	0.52	2.24	2.27	1.97	2.27
17	1.98	2.27	-0.09	0.35	0.20	-0.07	0.53	0.29	2.26	2.27	1.96	2.27
18	2.13	2.27	-0.02	0.13	0.25	-0.07	0.64	0.02	2.27	2.27	2.11	2.27
19	2.24	2.27	0.14	0.07	0.27	0.06	0.79	0.13	2.27	2.27	2.22	2.12
20	2.27	2.27	0.20	0.13	0.08	0.04	0.95	0.31	2.27	2.27	2.27	0.55
21	2.27	2.27	0.24	0.16	0.13	0.10	1.14	0.59	2.27	2.27	2.27	1.16
22	2.27	2.27	0.27	0.18	0.16	0.13	1.22	0.87	2.27	2.27	2.27	1.69
23	2.27	2.27	0.08	0.13	0.18	0.15	1.27	1.10	2.27	2.27	2.27	1.95
24	2.27	2.27	0.14	0.06	0.20	0.15	1.35	1.29	2.27	2.27	2.17	2.12
25	2.27	2.27	0.18	0.13	0.22	0.16	1.43	1.42	2.27	2.27	1.78	2.24
26	2.27	2.27	0.21	0.16	0.16	0.07	1.50	1.53	2.27	2.27	1.97	1.55
27	2.27	0.41	0.24	0.18	0.22	0.11	1.56	1.61	2.27	2.27	2.11	0.62
28	2.27	0.34	0.27	0.19	0.27	0.12	1.61	1.66	2.27	2.27	2.22	1.44
29	2.27	-0.39	0.31	0.19	---	0.11	1.68	0.14	2.27	2.27	2.27	1.77
30	2.27	-0.06	0.38	0.20	---	0.02	0.97	0.20	2.27	2.27	2.27	2.00
31	2.27	---	0.45	0.19	---	0.03	---	0.51	---	2.27	2.27	---

WTR YR 2002 HIGHEST -.46 NOV 29, 2001

LOWEST 2.27 MANY DAYS

MILLINGTON WETLAND--Continued

351853089515101. Local number, Sh:V-64 (W1-5).

LOCATION.--Lat 35°18'53", long 89°51'51", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--Missing record, May 3 to May 23 and Sept. 10 to Sept. 16. Bottom of well, 2.25 ft below land surface. Negative values indicate water levels above land surface. Recording stops at 1.71 ft due to blockage at well bottom for the entire 2002 water year.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.71	1.53	0.09	0.20	0.02	0.16	0.0	0.11	0.87	1.71	1.71	1.71
2	1.71	1.67	0.11	0.25	0.04	0.12	0.0	0.23	1.60	1.71	1.71	1.71
3	1.71	1.49	0.14	0.28	0.04	0.12	0.03	---	1.71	1.71	1.71	1.71
4	1.71	1.19	0.16	0.35	0.05	0.18	0.06	---	1.71	1.71	1.71	1.71
5	1.71	1.39	0.17	0.33	0.07	0.20	0.11	---	1.71	1.71	1.71	1.71
6	1.71	1.59	0.14	0.05	0.03	0.23	0.15	---	1.71	1.71	1.71	1.71
7	1.71	1.71	0.01	0.02	-0.02	0.24	0.18	---	1.71	1.71	1.71	1.71
8	1.71	1.71	0.02	0.04	0.01	0.25	0.15	---	1.71	1.71	1.71	1.71
9	1.71	1.71	0.08	0.05	0.02	0.05	0.11	---	1.71	1.71	1.71	1.55
10	1.71	1.71	0.10	0.06	0.03	0.03	0.17	---	1.71	1.71	1.71	---
11	0.62	1.71	0.12	0.02	0.04	0.0	0.22	---	1.71	1.71	1.71	---
12	0.00	1.71	-0.03	0.04	0.05	-0.11	0.26	---	1.71	1.71	1.71	---
13	0.01	1.71	-0.10	0.05	0.07	0.01	0.32	---	1.71	1.71	1.71	---
14	-0.06	1.71	-0.12	0.06	0.09	0.03	0.41	---	1.71	1.71	1.71	---
15	0.05	1.71	0.02	0.09	0.10	0.03	0.55	---	1.71	1.71	1.71	---
16	0.14	1.71	-0.12	0.11	0.06	0.03	0.78	---	1.71	1.71	1.71	---
17	0.28	1.71	-0.17	0.12	0.09	-0.23	1.08	---	1.71	1.71	1.71	1.71
18	0.44	1.71	0.00	0.0	0.11	-0.06	1.40	---	1.71	1.71	1.71	1.71
19	0.65	1.71	0.03	-0.06	0.11	-0.04	1.69	---	1.71	1.71	1.71	1.46
20	0.95	1.71	0.05	0.02	-0.05	-0.10	1.71	---	1.71	1.71	1.71	-0.15
21	1.23	1.71	0.07	0.04	0.03	0.0	1.71	---	1.71	1.71	1.71	0.07
22	1.46	1.71	0.08	0.05	0.04	0.03	1.71	---	1.71	1.71	1.71	0.42
23	1.66	1.71	-0.08	0.03	0.05	0.03	1.71	---	1.71	1.71	1.71	1.34
24	1.71	1.03	0.02	-0.09	0.06	0.04	1.71	1.71	1.71	1.71	1.53	1.71
25	0.37	0.19	0.04	0.02	0.07	0.04	1.71	1.71	1.71	1.71	0.54	1.71
26	0.33	0.29	0.06	0.04	0.07	-0.03	1.71	1.71	1.71	1.71	1.70	1.09
27	0.64	-0.05	0.06	0.05	0.13	0.01	1.71	1.71	1.71	1.71	1.71	-0.01
28	0.92	-0.10	0.07	0.05	0.14	0.02	1.71	1.59	1.71	1.71	1.71	0.14
29	1.12	-0.26	0.09	0.05	---	-0.03	1.71	0.03	1.71	1.71	1.71	0.33
30	1.30	0.02	0.13	0.05	---	-0.12	0.93	0.11	1.71	1.71	1.71	0.66
31	1.42	---	0.15	0.05	---	-0.11	---	0.33	---	1.71	1.71	---

WTR YR 2002 HIGHEST -.57 NOV 28, 2001

LOWEST 1.71 MANY DAYS

MILLINGTON WETLAND--Continued

351909089513301. Local number, Sh:V-68 (W2-4).

LOCATION.--Lat 35°19'09", long 89°51'33", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.40 ft above land-surface datum.

REMARKS.--Missing record, Nov. 30 to Dec. 10, Jan. 21 to Jan. 22, Jan. 25 to Feb. 7, and May 9 to May 23. Bottom of well, 2.21 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.21	2.21	---	0.83	---	0.50	0.12	0.12	1.39	2.21	2.21	2.21
2	2.21	2.21	---	0.93	---	0.38	0.15	0.09	1.92	2.21	2.21	2.21
3	2.21	2.21	---	0.99	---	0.33	0.23	-0.19	2.19	2.21	2.21	2.21
4	2.21	2.21	---	1.13	---	0.45	0.34	-0.43	2.21	2.21	2.21	2.21
5	2.21	2.21	---	1.08	---	0.52	0.44	-0.54	2.21	2.21	2.21	2.21
6	2.21	2.21	---	0.38	---	0.59	0.54	-0.58	2.21	2.21	2.21	2.21
7	2.21	2.21	---	0.33	---	0.62	0.64	-0.42	2.21	2.21	2.21	2.21
8	2.21	2.21	---	0.37	0.12	0.65	0.55	-0.05	2.21	2.21	2.21	2.21
9	2.21	2.21	---	0.40	0.15	0.27	0.30	---	2.21	2.21	2.21	2.21
10	2.21	2.21	---	0.41	0.18	0.16	0.38	---	2.21	2.21	2.21	2.21
11	2.19	2.21	0.32	0.34	0.23	0.13	0.46	---	2.21	2.21	2.21	2.21
12	2.21	2.21	0.11	0.37	0.28	0.08	0.54	---	2.21	2.21	2.21	2.21
13	2.10	2.21	-0.11	0.41	0.35	0.13	0.63	---	2.21	2.21	2.21	2.21
14	1.49	2.21	-0.22	0.47	0.40	0.16	0.75	---	2.21	2.21	2.21	2.21
15	1.70	2.21	0.07	0.55	0.41	0.20	0.96	---	2.21	2.21	2.21	2.21
16	2.04	2.21	-0.08	0.60	0.27	0.20	1.23	---	2.21	2.21	2.21	2.21
17	2.20	2.21	-0.30	0.60	0.35	-0.32	1.47	---	2.21	2.21	2.21	2.21
18	2.21	2.21	-0.04	0.34	0.42	-0.50	1.65	---	2.21	2.21	2.21	2.21
19	2.21	2.21	0.25	0.51	0.38	-0.04	1.82	---	2.21	2.21	2.21	2.21
20	2.21	2.21	0.31	0.66	0.12	0.03	1.96	---	2.21	2.21	2.21	1.37
21	2.21	2.21	0.34	---	0.16	0.12	2.09	---	2.21	2.21	2.21	2.12
22	2.21	2.21	0.30	---	0.20	0.17	2.12	---	2.21	2.21	2.21	2.21
23	2.21	2.21	0.27	0.67	0.25	0.21	2.11	---	2.21	2.21	2.21	2.21
24	2.21	2.21	0.30	-0.08	0.31	0.25	2.17	2.19	2.21	2.21	2.21	2.21
25	2.21	2.21	0.33	---	0.34	0.28	2.21	2.21	2.21	2.21	2.21	2.21
26	2.21	2.12	0.38	---	0.28	0.10	2.21	2.21	2.21	2.21	2.21	1.69
27	2.21	0.26	0.42	---	0.38	0.13	2.21	2.21	2.21	2.21	2.21	0.52
28	2.21	0.11	0.46	---	0.45	0.16	2.21	1.55	2.21	2.21	2.21	1.33
29	2.21	-0.63	0.54	---	---	0.16	2.21	0.15	2.21	2.21	2.21	1.89
30	2.21	---	0.64	---	---	0.05	1.33	0.27	2.21	2.21	2.21	2.20
31	2.21	---	0.72	---	---	0.06	---	0.68	---	2.21	2.21	---

WTR YR 2002 HIGHEST -.86 JAN 24, 2002

LOWEST 2.21 MANY DAYS

MILLINGTON WETLAND--Continued

351848089511001. Local number, Sh:V-70 (W3-2).

LOCATION.--Lat 35°18'48", long 89°51'10", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.24 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.57	1.17	0.70	1.09	0.98	1.13	0.65	0.97	1.13	2.24	2.24	2.24
2	1.64	1.20	0.79	1.10	1.04	1.09	0.78	1.06	1.22	2.24	2.24	2.24
3	1.71	1.09	0.86	1.12	1.05	1.13	0.88	0.91	1.29	2.24	2.24	2.24
4	1.79	1.15	0.91	1.14	1.09	1.15	0.93	0.84	1.36	2.24	2.24	2.24
5	1.83	1.19	0.96	1.11	1.10	1.15	0.98	0.98	1.38	2.24	2.24	2.24
6	1.62	1.22	0.90	0.83	1.03	1.16	1.01	1.03	1.23	2.24	2.24	2.24
7	1.67	1.24	0.74	1.02	0.88	1.17	1.04	1.10	1.33	2.24	2.24	2.24
8	1.78	1.25	0.72	1.06	1.01	1.17	1.04	1.16	1.43	2.24	2.24	2.24
9	1.90	1.27	0.83	1.08	1.05	0.88	1.01	1.18	1.52	2.24	2.24	2.24
10	1.98	1.26	0.88	1.08	1.10	1.03	1.08	0.95	1.54	2.24	2.24	2.24
11	0.55	1.27	0.92	1.02	1.10	0.91	1.11	1.04	1.29	2.24	2.24	2.24
12	0.65	1.30	0.55	1.08	1.11	0.36	1.14	1.14	1.43	2.24	2.24	2.24
13	0.52	1.30	0.36	1.10	1.14	0.69	1.17	0.85	1.58	2.24	2.24	2.24
14	0.51	1.31	0.32	1.13	1.14	0.79	1.19	1.03	1.63	2.24	2.24	2.24
15	0.71	1.32	0.66	1.17	1.14	0.88	1.24	1.11	1.81	2.24	2.24	2.24
16	0.81	1.34	0.36	1.15	1.10	0.93	1.29	1.18	2.01	2.24	2.24	2.24
17	0.86	1.35	0.21	1.13	1.14	0.08	1.32	0.70	2.08	2.24	2.24	2.24
18	0.89	1.34	0.57	0.98	1.15	0.37	1.33	0.74	2.23	2.24	2.24	2.24
19	0.94	1.30	0.73	0.75	1.03	0.55	1.39	0.85	2.24	2.24	2.24	2.24
20	0.98	1.24	0.83	0.96	0.81	0.38	1.42	0.94	2.24	2.24	2.24	1.25
21	1.01	1.29	0.87	1.02	1.01	0.69	1.50	1.02	2.24	2.24	2.24	0.84
22	1.02	1.32	0.89	1.03	1.05	0.78	1.40	1.09	2.24	2.24	2.24	0.93
23	1.04	1.32	0.56	1.01	1.06	0.84	1.50	1.15	2.24	2.24	2.24	1.00
24	0.96	1.00	0.79	0.49	1.08	0.90	1.57	1.20	2.24	2.24	2.24	1.06
25	0.95	1.19	0.86	0.72	1.09	0.95	1.82	1.25	2.24	2.24	2.24	1.08
26	1.06	1.18	0.91	0.81	1.09	0.74	2.04	1.28	2.24	2.24	2.24	0.70
27	1.09	0.59	0.95	0.88	1.12	0.91	2.12	1.30	2.24	2.24	2.24	0.35
28	1.11	0.42	0.98	0.92	1.13	0.96	2.18	1.23	2.24	2.24	2.24	0.69
29	1.13	0.03	1.03	0.96	---	0.86	2.24	0.73	2.24	2.24	2.24	0.80
30	1.14	0.47	1.05	0.99	---	0.47	1.61	0.92	2.24	2.24	2.24	0.87
31	1.15	---	1.06	1.00	---	0.34	---	1.04	---	2.24	2.24	---

WTR YR 2002 HIGHEST -.11 NOV 28, 2001

LOWEST 2.24 MANY DAYS

MILLINGTON WETLAND--Continued

351856089511901. Local number, Sh:V-71 (W3-3).

LOCATION.--Lat 35°18'56", long 89°51'19", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.50 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.37 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--October 1993 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-0.46	-0.82	-1.31	-0.86	-0.92	-0.69	-1.28	-0.99	-0.99	2.37	2.37	2.37
2	-0.41	-0.80	-1.21	-0.83	-0.88	-0.68	-1.18	-0.95	-0.94	2.37	2.37	2.37
3	-0.37	-0.80	-1.14	-0.82	-0.87	-0.69	-1.09	-0.96	-0.90	2.37	2.37	2.37
4	-0.33	-0.79	-1.09	-0.79	-0.84	-0.67	-1.04	-1.03	-0.86	2.37	2.37	2.37
5	-0.31	-0.77	-1.04	-0.79	-0.81	-0.65	-0.99	-1.00	-0.81	2.37	2.37	2.37
6	-0.33	-0.76	-1.01	-0.88	-0.83	-0.63	-0.95	-0.96	-0.81	2.37	2.37	2.37
7	-0.30	-0.73	-1.05	-0.89	-0.88	-0.62	-0.91	-0.91	-0.78	2.37	2.37	2.37
8	-0.27	-0.71	-1.23	-0.86	-0.87	-0.60	-0.89	-0.87	-0.74	2.37	2.37	2.37
9	-0.23	-0.68	-1.16	-0.85	-0.86	-0.68	-0.88	-0.85	-0.69	2.37	2.37	2.37
10	-0.18	-0.65	-1.11	-0.84	-0.83	-0.82	-0.85	-0.90	-0.65	2.37	2.37	2.37
11	-0.68	-0.62	-1.07	-0.84	-0.80	-0.81	-0.82	-0.91	-0.65	2.37	2.37	2.37
12	-1.32	-0.59	-1.19	-0.82	-0.77	-1.31	-0.80	-0.88	-0.62	2.37	2.37	2.37
13	-1.27	-0.55	-1.49	-0.80	-0.73	-1.27	-0.77	-0.98	-0.57	2.37	2.37	2.37
14	-1.39	-0.52	-1.50	-0.78	-0.71	-1.16	-0.74	-0.98	-0.54	2.37	2.37	2.37
15	-1.31	-0.49	-1.32	-0.76	-0.69	-1.09	-0.71	-0.94	-0.49	2.37	2.37	2.37
16	-1.24	-0.46	-1.42	-0.75	-0.69	-1.02	-0.67	-0.90	-0.46	2.37	2.28	2.37
17	-1.18	-0.43	-1.64	-0.73	-0.68	-1.53	-0.63	-1.12	-0.44	2.37	2.34	2.37
18	-1.14	-0.40	-1.39	-0.78	-0.66	-1.52	-0.60	-1.27	-0.40	2.37	2.37	2.37
19	-1.10	-0.39	-1.26	-0.97	-0.64	-1.31	-0.56	-1.17	-0.35	2.37	2.37	1.95
20	-1.06	-0.39	-1.17	-1.01	-0.86	-1.39	-0.52	-1.10	-0.29	2.37	2.37	-0.74
21	-1.04	-0.37	-1.11	-0.97	-0.94	-1.27	-0.49	-1.04	-0.21	2.37	2.37	-1.30
22	-1.01	-0.35	-1.06	-0.93	-0.88	-1.17	-0.47	-0.99	-0.08	2.37	2.37	-1.18
23	-0.99	-0.35	-1.23	-0.92	-0.83	-1.11	-0.44	-0.94	0.21	2.37	2.37	-1.10
24	-0.96	-0.45	-1.18	-1.29	-0.79	-1.06	-0.41	-0.90	0.56	2.37	2.27	-1.05
25	-0.99	-0.51	-1.11	-1.27	-0.76	-1.01	-0.36	-0.88	0.93	2.37	1.68	-1.00
26	-0.96	-0.49	-1.05	-1.17	-0.75	-1.05	-0.33	-0.85	1.24	2.37	1.98	-1.05
27	-0.93	-1.16	-1.01	-1.10	-0.72	-1.03	-0.31	-0.82	1.59	2.37	2.19	-1.48
28	-0.90	-1.34	-0.99	-1.05	-0.71	-0.98	-0.28	-0.79	1.87	2.37	2.35	-1.32
29	-0.88	-1.84	-0.95	-1.00	---	-0.97	-0.23	-1.02	2.17	2.37	2.37	-1.24
30	-0.86	-1.49	-0.92	-0.96	---	-1.24	-0.52	-1.09	2.34	2.37	2.37	-1.19
31	-0.84	---	-0.89	-0.93	---	-1.42	---	-1.04	---	2.37	2.37	---

WTR YR 2002 HIGHEST -1.99 NOV 28-29, 2001

LOWEST 2.37 MANY DAYS

MILLINGTON WETLAND--Continued

351855089515301. Local number, Sh:V-74 (W2-5).

LOCATION.--Lat 35°18'55", long 89°51'53", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.00 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.12 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--January 1997 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.12	2.12	1.52	1.47	0.48	1.76	0.23	2.08	2.12	2.12	2.12	2.12
2	2.12	2.12	1.95	1.58	0.65	1.80	0.41	2.12	2.12	2.12	2.12	2.12
3	2.12	2.12	2.12	1.67	0.81	1.77	0.80	2.12	2.12	2.12	2.12	2.12
4	2.12	2.12	2.12	1.75	0.89	1.81	1.24	2.11	2.12	2.12	2.12	2.12
5	2.12	2.12	2.12	1.82	1.10	1.85	1.53	2.12	2.12	2.12	2.12	2.12
6	2.12	2.12	2.10	1.14	1.16	1.90	1.73	2.12	2.12	2.12	2.12	2.12
7	2.12	2.12	1.66	0.33	0.47	1.95	1.89	2.12	2.12	2.12	2.12	2.12
8	2.12	2.12	1.03	0.41	0.19	1.99	1.97	2.12	2.12	2.12	2.12	2.12
9	2.12	2.12	1.78	0.51	0.29	1.44	1.99	2.12	2.12	2.12	2.12	2.12
10	2.12	2.12	1.90	0.60	0.42	1.08	2.06	2.12	2.12	2.12	2.12	2.12
11	0.99	2.12	1.98	0.37	0.65	1.06	2.11	2.12	2.12	2.12	2.12	2.12
12	1.53	2.12	2.01	0.41	0.89	0.08	2.12	2.12	2.12	2.12	2.12	2.12
13	1.65	2.12	0.32	0.52	1.10	0.22	2.12	1.72	2.12	2.12	2.12	2.12
14	1.16	2.12	0.17	0.66	1.30	0.36	2.12	1.90	2.12	2.12	2.12	2.12
15	2.11	2.12	0.26	0.89	1.42	0.56	2.12	2.12	2.12	2.12	2.12	2.12
16	2.12	2.12	0.46	1.10	1.41	0.86	2.12	2.12	2.12	2.12	2.12	2.12
17	2.12	2.12	0.05	1.24	1.42	0.11	2.12	1.15	2.12	2.12	2.12	2.12
18	2.12	2.12	0.12	0.48	1.51	0.10	2.12	1.48	2.12	2.12	2.12	2.12
19	2.12	2.12	0.24	0.13	1.54	0.10	2.12	2.10	2.12	2.12	2.12	1.87
20	2.12	2.12	0.34	0.19	0.18	0.09	2.12	2.12	2.12	2.12	2.12	0.74
21	2.12	2.12	0.52	0.28	0.40	0.23	2.12	2.12	2.12	2.12	2.12	2.10
22	2.12	2.12	0.73	0.39	0.70	0.47	2.12	2.12	2.12	2.12	2.12	2.12
23	2.12	2.12	0.37	0.24	1.02	0.70	2.12	2.12	2.12	2.12	2.12	2.12
24	2.12	2.12	0.21	0.10	1.23	0.92	2.12	2.12	2.12	2.12	2.12	2.12
25	2.12	2.12	0.34	0.20	1.39	1.12	2.12	2.12	2.12	2.12	2.12	2.12
26	2.12	2.10	0.47	0.32	1.45	0.46	2.12	2.12	2.12	2.12	2.12	1.71
27	2.12	1.43	0.62	0.43	1.56	0.50	2.12	2.12	2.12	2.12	2.12	1.03
28	2.12	1.34	0.79	0.55	1.67	0.72	2.12	2.06	2.12	2.12	2.12	2.12
29	2.12	0.06	0.96	0.64	---	0.78	2.12	1.76	2.12	2.12	2.12	2.12
30	2.12	0.74	1.18	0.73	---	0.08	1.85	2.12	2.12	2.12	2.12	2.12
31	2.12	---	1.35	0.85	---	0.09	---	2.12	---	2.12	2.12	---

WTR YR 2002 HIGHEST -.03 JAN 24, 2002

LOWEST 2.12 MANY DAYS

MILLINGTON WETLAND--Continued

351852089512501. Local number, Sh:V-75 (W2-6).

LOCATION.--Lat 35°18'52", long 89°51'25", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
Owner: Tennessee Department of Transportation (TDOT) and USGS.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 265 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing, 3.70 ft above land-surface datum.

REMARKS.--No missing record. Bottom of well, 2.10 ft below land surface. Negative values indicate water levels above land surface.

PERIOD OF RECORD.--January 1997 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.10	2.10	0.00	0.77	0.03	0.66	-0.06	1.36	1.48	2.10	2.10	2.10
2	2.10	2.10	0.07	0.84	0.14	0.37	0.05	1.52	1.74	2.10	2.10	2.10
3	2.10	2.10	0.15	0.82	0.13	0.39	0.34	1.25	1.95	2.10	2.10	2.10
4	2.10	2.10	0.22	1.03	0.24	0.63	0.61	-0.05	2.08	2.10	2.10	2.10
5	2.10	2.10	0.29	0.80	0.33	0.72	0.88	0.15	2.10	2.10	2.10	2.10
6	2.10	2.10	0.17	-0.08	0.07	0.78	1.07	0.47	2.10	2.10	2.10	2.10
7	2.10	2.10	-0.08	-0.07	-0.12	0.76	1.18	1.05	2.10	2.10	2.10	2.10
8	2.10	2.10	-0.06	0.00	-0.06	0.76	1.04	1.38	2.10	2.10	2.10	2.10
9	2.10	2.10	0.05	0.05	0.0	0.13	0.50	1.63	2.10	2.10	2.10	2.10
10	2.10	2.10	0.13	0.07	0.14	0.02	0.74	0.65	2.10	2.10	2.10	2.10
11	1.72	2.10	0.23	-0.05	0.23	-0.03	1.00	0.21	2.10	2.10	2.10	2.10
12	2.01	2.10	-0.06	0.01	0.30	-0.17	1.22	0.71	2.10	2.10	2.10	2.10
13	1.79	2.10	-0.16	0.10	0.47	-0.06	1.38	0.14	2.10	2.10	2.10	2.10
14	1.63	2.10	-0.15	0.20	0.54	0.02	1.51	0.19	2.10	2.10	2.10	2.10
15	1.84	2.10	-0.03	0.39	0.51	0.13	1.66	0.82	2.10	2.10	2.10	2.10
16	1.93	2.10	-0.15	0.41	0.23	0.21	1.81	1.35	2.10	2.10	2.10	2.10
17	2.04	2.10	-0.23	0.40	0.41	-0.27	1.93	0.67	2.10	2.10	2.10	2.10
18	2.10	2.10	-0.10	-0.08	0.52	-0.19	2.02	0.11	2.10	2.10	2.10	2.10
19	2.10	2.10	0.0	-0.16	0.38	-0.14	2.09	0.63	2.10	2.10	2.10	2.10
20	2.10	2.10	0.12	-0.05	-0.09	-0.15	2.10	1.20	2.10	2.10	2.10	1.69
21	2.10	2.10	0.18	0.05	0.04	0.00	2.10	1.58	2.10	2.10	2.10	2.07
22	2.10	2.10	0.10	0.07	0.18	0.13	2.10	1.80	2.10	2.10	2.10	2.10
23	2.10	2.10	-0.12	-0.06	0.27	0.20	2.10	1.93	2.10	2.10	2.10	2.10
24	2.10	2.10	0.0	-0.16	0.37	0.27	2.10	2.04	2.10	2.10	2.10	2.10
25	2.10	2.08	0.09	-0.04	0.40	0.36	2.10	2.10	2.10	2.10	2.10	2.10
26	2.10	1.92	0.16	0.05	0.28	-0.08	2.10	2.10	2.10	2.10	2.10	1.68
27	2.10	-0.04	0.21	0.12	0.48	0.00	2.10	2.10	2.10	2.10	2.10	0.53
28	2.10	-0.17	0.25	0.14	0.62	0.09	2.10	1.95	2.10	2.10	2.10	0.78
29	2.10	-0.29	0.42	0.14	---	0.10	2.10	0.15	2.10	2.10	2.10	1.24
30	2.10	-0.12	0.58	0.14	---	-0.19	1.90	0.37	2.10	2.10	2.10	1.55
31	2.10	---	0.62	0.11	---	-0.17	---	1.03	---	2.10	2.10	---

WTR YR 2002 HIGHEST -.36 NOV 28, 2001

LOWEST 2.10 MANY DAYS

MILLINGTON WETLAND--Continued

351900089511100. Local number, Beaver Pond.

LOCATION.--Lat 35°19'00", long 89°51'11", Hydrologic Unit 08010209, 0.5 mi east of intersection of State Route 385 and Singleton Parkway, near the southeastern boundary of the Naval Support Activity Midsouth.
 Owner: Tennessee Department of Transportation (TDOT) and USGS.

DRAINAGE AREA.--0.88 mi².

PERIOD OF RECORD.--June 1993 to current year.

GAGE.--Water-level recorders--15-minute interval.

REMARKS.--No missing record. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 3.91 ft. from recorded range in stage, Mar. 2, 1997; minimum .43 ft. Nov. 14, 1994.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 4.05 ft. Nov. 29; minimum, .63 ft. Sept. 16, 18-19.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	1.41	1.38	1.39	2.84	2.84	2.84	3.25	3.07	3.18	3.33	3.32	3.33
2	1.38	1.34	1.36	2.84	2.82	2.83	3.19	3.08	3.17	3.32	3.32	3.32
3	1.34	1.31	1.33	2.86	2.82	2.85	3.19	3.19	3.19	3.32	3.31	3.31
4	1.31	1.29	1.30	2.85	2.83	2.84	3.21	3.19	3.20	3.31	3.30	3.31
5	1.29	1.27	1.28	2.83	2.82	2.83	3.22	3.21	3.22	3.34	3.30	3.31
6	1.29	1.26	1.28	2.82	2.80	2.81	3.27	3.22	3.24	3.36	3.34	3.35
7	1.26	1.23	1.24	2.80	2.78	2.79	3.34	3.25	3.28	3.34	3.34	3.34
8	1.23	1.20	1.21	2.78	2.75	2.76	3.38	3.33	3.37	3.34	3.33	3.33
9	1.20	1.17	1.18	2.75	2.73	2.74	3.37	3.36	3.37	3.33	3.33	3.33
10	1.24	1.15	1.16	2.73	2.72	2.73	3.36	3.35	3.36	3.35	3.33	3.33
11	1.97	1.24	1.75	2.72	2.70	2.71	3.35	3.35	3.35	3.35	3.34	3.34
12	2.00	1.97	1.99	2.70	2.68	2.69	3.67	3.35	3.50	3.34	3.34	3.34
13	2.38	2.00	2.18	2.68	2.66	2.67	3.65	3.46	3.52	3.34	3.33	3.33
14	2.74	2.38	2.61	2.66	2.64	2.65	3.63	3.43	3.51	3.33	3.32	3.33
15	2.79	2.74	2.78	2.64	2.63	2.63	3.43	3.39	3.40	3.33	3.32	3.32
16	2.82	2.79	2.80	2.63	2.61	2.62	3.65	3.38	3.53	3.32	3.31	3.32
17	2.84	2.82	2.83	2.61	2.59	2.60	3.89	3.47	3.66	3.35	3.31	3.32
18	2.85	2.84	2.84	2.59	2.57	2.58	3.47	3.38	3.42	3.37	3.33	3.34
19	2.86	2.85	2.86	2.59	2.57	2.58	3.38	3.37	3.38	3.39	3.37	3.38
20	2.87	2.86	2.87	2.59	2.57	2.58	3.37	3.35	3.36	3.39	3.39	3.39
21	2.88	2.87	2.88	2.57	2.55	2.56	3.35	3.34	3.35	3.39	3.38	3.38
22	2.89	2.88	2.89	2.55	2.54	2.54	3.40	3.34	3.36	3.38	3.38	3.38
23	2.89	2.89	2.89	2.54	2.53	2.53	3.44	3.40	3.43	3.38	3.38	3.38
24	2.97	2.89	2.91	2.63	2.53	2.60	3.42	3.40	3.41	3.64	3.38	3.53
25	2.97	2.95	2.96	2.63	2.62	2.62	3.40	3.39	3.40	3.46	3.42	3.44
26	2.95	2.92	2.93	2.90	2.61	2.64	3.39	3.38	3.39	3.42	3.40	3.41
27	2.92	2.89	2.91	2.96	2.90	2.95	3.38	3.37	3.37	3.40	3.38	3.39
28	2.89	2.88	2.88	3.97	2.96	3.20	3.37	3.35	3.36	3.38	3.37	3.38
29	2.88	2.86	2.87	4.05	3.79	3.99	3.35	3.34	3.34	3.37	3.37	3.37
30	2.86	2.85	2.85	3.79	3.25	3.45	3.34	3.33	3.33	3.37	3.36	3.37
31	2.85	2.84	2.85	---	---	---	3.33	3.33	3.33	3.38	3.36	3.36
MONTH	2.97	1.15	2.26	4.05	2.53	2.78	3.89	3.07	3.36	3.64	3.30	3.36

GROUND-WATER LEVELS

369

MILLINGTON WETLAND--Continued

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	3.38	3.36	3.36	3.34	3.33	3.33	3.43	3.37	3.40	3.18	3.17	3.18
2	3.36	3.34	3.35	3.35	3.33	3.34	3.37	3.34	3.35	3.18	3.17	3.17
3	3.35	3.34	3.34	3.34	3.33	3.33	3.34	3.32	3.33	3.29	3.17	3.22
4	3.34	3.33	3.34	3.33	3.31	3.32	3.32	3.31	3.32	3.29	3.27	3.28
5	3.33	3.32	3.33	3.31	3.30	3.31	3.32	3.32	3.32	3.28	3.27	3.27
6	3.35	3.33	3.35	3.30	3.29	3.29	3.32	3.31	3.32	3.27	3.25	3.26
7	3.35	3.35	3.35	3.29	3.28	3.29	3.31	3.31	3.31	3.25	3.23	3.24
8	3.35	3.34	3.35	3.29	3.28	3.28	3.34	3.30	3.32	3.23	3.21	3.22
9	3.35	3.34	3.35	3.38	3.28	3.33	3.33	3.32	3.32	3.22	3.20	3.21
10	3.34	3.34	3.34	3.34	3.33	3.33	3.32	3.30	3.31	3.27	3.21	3.25
11	3.34	3.33	3.33	3.43	3.33	3.35	3.30	3.29	3.30	3.26	3.23	3.25
12	3.33	3.32	3.33	3.61	3.43	3.51	3.29	3.29	3.29	3.23	3.20	3.22
13	3.33	3.32	3.32	3.43	3.40	3.42	3.29	3.28	3.28	3.30	3.20	3.28
14	3.32	3.31	3.31	3.40	3.39	3.39	3.28	3.27	3.28	3.28	3.25	3.26
15	3.32	3.30	3.31	3.39	3.38	3.39	3.27	3.25	3.26	3.25	3.21	3.23
16	3.32	3.31	3.31	3.49	3.36	3.37	3.25	3.23	3.24	3.21	3.18	3.20
17	3.31	3.30	3.30	3.84	3.47	3.72	3.23	3.21	3.22	3.54	3.18	3.35
18	3.30	3.28	3.29	3.78	3.42	3.54	3.21	3.18	3.19	3.44	3.37	3.39
19	3.38	3.28	3.30	3.42	3.39	3.40	3.18	3.15	3.16	3.37	3.34	3.35
20	3.39	3.37	3.38	3.53	3.41	3.47	3.15	3.11	3.13	3.34	3.32	3.33
21	3.39	3.38	3.38	3.42	3.36	3.38	3.11	3.08	3.10	3.32	3.29	3.30
22	3.38	3.37	3.38	3.36	3.33	3.34	3.11	3.08	3.10	3.29	3.26	3.27
23	3.37	3.36	3.37	3.33	3.31	3.32	3.08	3.05	3.07	3.27	3.24	3.25
24	3.37	3.36	3.36	3.31	3.31	3.31	3.05	3.03	3.04	3.24	3.22	3.23
25	3.37	3.36	3.36	3.33	3.31	3.31	3.03	2.99	3.01	3.22	3.20	3.22
26	3.37	3.35	3.36	3.36	3.33	3.34	2.99	2.97	2.98	3.21	3.19	3.21
27	3.35	3.35	3.35	3.34	3.33	3.33	2.97	2.97	2.97	3.19	3.17	3.18
28	3.35	3.34	3.34	3.33	3.33	3.33	2.97	2.94	2.96	3.33	3.16	3.21
29	---	---	---	3.42	3.33	3.34	2.94	2.92	2.93	3.32	3.29	3.30
30	---	---	---	3.50	3.38	3.43	3.18	2.92	3.06	3.29	3.26	3.28
31	---	---	---	3.55	3.43	3.50	---	---	---	3.26	3.23	3.25
MONTH	3.39	3.28	3.34	3.84	3.28	3.38	3.43	2.92	3.20	3.54	3.16	3.25

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	3.23	3.20	3.22	2.19	2.15	2.17	1.70	1.67	1.68	1.24	1.21	1.22
2	3.20	3.16	3.18	2.15	2.11	2.13	1.67	1.63	1.65	1.21	1.17	1.19
3	3.16	3.12	3.14	2.14	2.11	2.13	1.63	1.59	1.61	1.17	1.13	1.15
4	3.12	3.08	3.10	2.11	2.07	2.09	1.59	1.54	1.57	1.13	1.09	1.11
5	3.09	3.06	3.07	2.07	2.02	2.05	1.54	1.50	1.52	1.09	1.04	1.07
6	3.09	3.07	3.08	2.02	1.98	2.00	1.50	1.47	1.48	1.04	1.00	1.02
7	3.07	3.03	3.05	1.98	1.94	1.96	1.47	1.41	1.44	1.00	0.95	0.97
8	3.03	2.98	3.01	1.94	1.89	1.91	1.41	1.36	1.39	0.95	0.87	0.92
9	2.98	2.94	2.96	1.89	1.85	1.87	1.36	1.34	1.35	0.87	0.73	0.82
10	2.96	2.91	2.93	1.85	1.81	1.83	1.35	1.31	1.33	0.73	0.67	0.70
11	2.96	2.93	2.94	1.81	1.78	1.79	1.31	1.27	1.29	0.67	0.66	0.66
12	2.93	2.89	2.91	1.83	1.79	1.81	1.27	1.24	1.25	0.66	0.65	0.65
13	2.89	2.86	2.87	1.86	1.81	1.83	1.25	1.21	1.23	0.65	0.64	0.65
14	2.86	2.83	2.85	1.86	1.84	1.85	1.27	1.25	1.26	0.65	0.64	0.64
15	2.83	2.78	2.80	1.85	1.84	1.84	1.32	1.25	1.27	0.64	0.64	0.64
16	2.78	2.75	2.77	1.84	1.81	1.82	1.50	1.32	1.43	0.64	0.63	0.64
17	2.75	2.71	2.73	1.81	1.78	1.79	1.50	1.48	1.50	0.73	0.64	0.65
18	2.71	2.67	2.69	1.79	1.77	1.78	1.48	1.46	1.47	0.64	0.63	0.63
19	2.67	2.62	2.65	1.84	1.78	1.81	1.46	1.42	1.44	1.15	0.63	0.75
20	2.62	2.58	2.60	1.84	1.81	1.83	1.42	1.38	1.40	1.86	1.15	1.58
21	2.58	2.53	2.56	1.81	1.78	1.80	1.38	1.34	1.36	1.87	1.86	1.86
22	2.53	2.49	2.51	1.78	1.75	1.77	1.34	1.30	1.32	1.94	1.86	1.89
23	2.49	2.45	2.47	1.75	1.73	1.74	1.30	1.27	1.29	2.00	1.94	1.98
24	2.45	2.41	2.43	1.73	1.72	1.73	1.47	1.24	1.29	2.04	2.00	2.02
25	2.41	2.37	2.39	1.72	1.69	1.71	1.48	1.47	1.47	2.09	2.04	2.06
26	2.37	2.33	2.35	1.69	1.65	1.67	1.47	1.44	1.46	2.67	2.09	2.27
27	2.33	2.30	2.32	1.65	1.61	1.63	1.44	1.40	1.42	3.19	2.67	3.10
28	2.30	2.26	2.28	1.61	1.56	1.59	1.40	1.36	1.38	3.14	3.06	3.09
29	2.26	2.23	2.25	1.56	1.52	1.54	1.36	1.32	1.34	3.06	3.00	3.03
30	2.23	2.19	2.21	1.67	1.49	1.52	1.32	1.28	1.30	3.00	2.95	2.97
31	---	---	---	1.70	1.67	1.70	1.28	1.24	1.26	---	---	---
MONTH	3.23	2.19	2.74	2.19	1.49	1.83	1.70	1.21	1.40	3.19	0.63	1.40

GROUND-WATER LEVELS

HAMILTON COUNTY

351428085003600. Local number, Hm:0-15.

LOCATION.--Lat 35°14'28", long 85°00'36", Hydrologic Unit 06020001, at Smith Road and State Highway 58, near Snow Hill.
Owner: Savannah Valley Utility District.

AQUIFER.--Knox Dolomite of Cambrian and Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian test well, diameter 10 in., depth 262 ft, cased to 50 ft, open end.

INSTRUMENTATION.--Water-level recorder -- 60-minute intervals.

DATUM.--Elevation of land-surface datum is 735 ft above NGVD of 1929, from topographic map. Measuring point: Instrument shelf, 5.66 ft above land-surface datum.

REMARKS.--Records good. No missing record. Well previously published as "at Savannah Valley". Water level affected by pumping from municipal supply well 300 ft south. Negative values indicate water levels above land-surface.

PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.33 ft above land-surface datum, Feb. 11, 1994; lowest, 22.45 ft below land-surface datum, Sept. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

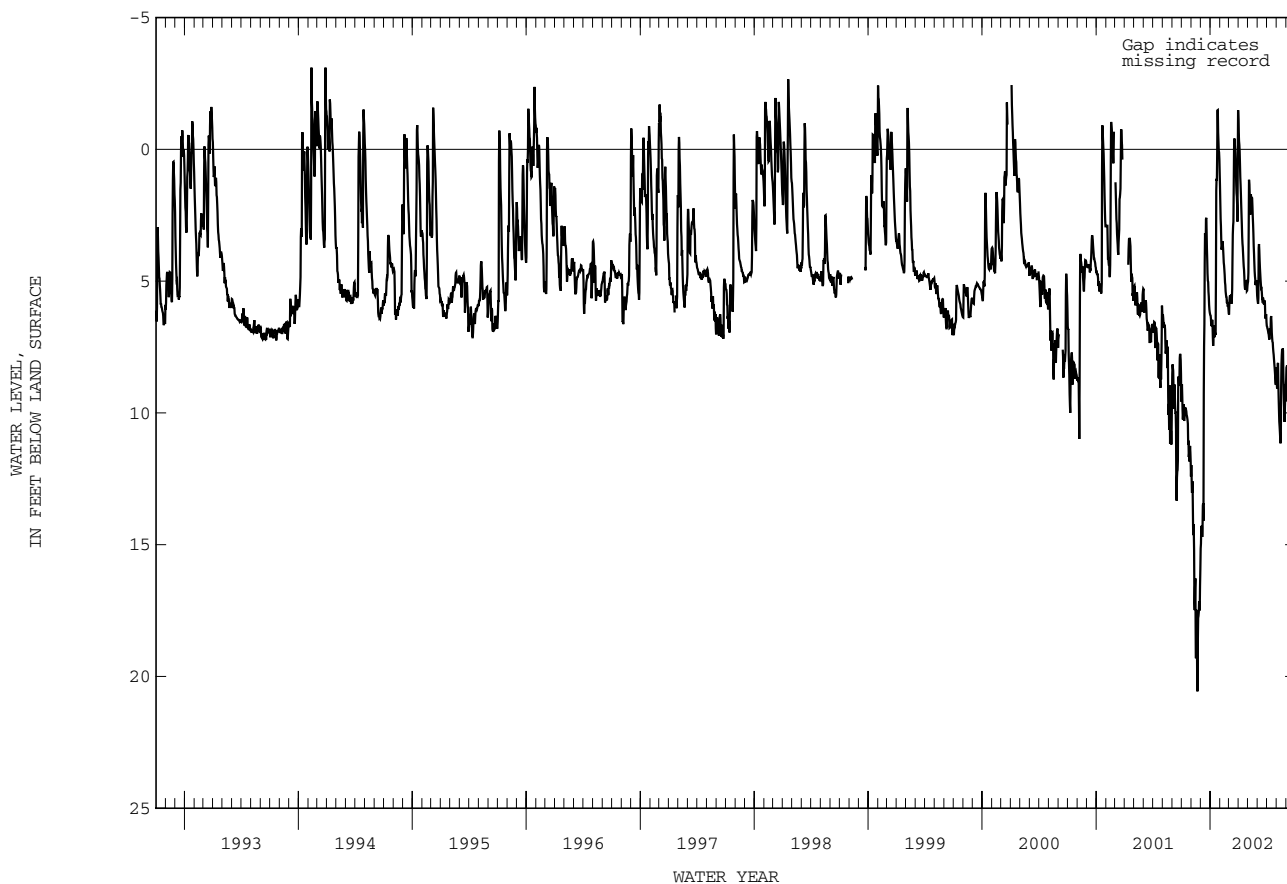
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.13	13.24	14.73	6.84	3.78	5.58	0.35	1.50	4.24	6.98	8.58	9.49
10	10.40	16.48	15.41	7.62	3.92	6.04	2.53	2.77	4.90	7.34	10.60	10.46
15	10.19	19.26	3.57	7.28	4.84	3.20	4.06	2.25	5.66	6.44	11.42	11.03
20	10.59	21.43	3.54	2.34	5.78	-0.18	5.12	3.94	5.94	7.48	8.49	9.21
25	11.84	19.08	5.34	-0.87	5.97	1.68	5.18	5.16	6.20	8.24	9.91	7.46
EOM	13.37	16.77	6.48	1.28	6.14	-1.37	5.44	5.70	6.67	8.61	9.49	7.14

WTR YR 2002

HIGHEST -2.50 JAN 25, 2002

LOWEST 21.66 NOV 21, 2001

LOWEST MONTHLY WATER LEVEL



HAMILTON COUNTY--Continued

350750085045802. Local number, Hm:O-19.

LOCATION.--Lat 35°07'50", long 85°04'58", Hydrologic Unit 06020001, at Short Trail Spring Road 5.5 mi northwest of Ooltewah.
Owner: Eastside Utility District.

AQUIFER.--Chepultepec Dolomite of Lower Ordovician age.

WELL CHARACTERISTICS.--Drilled artesian well, diameter 8 in., depth 72.96 ft, cased to 26 ft, open end; former production well.

INSTRUMENTATION.--Water-level recorder -- 15-minute intervals.

DATUM.--Elevation of land-surface datum is 698.5 ft above NGVD of 1929. Measuring point: Instrument shelf, 1.50 ft above land-surface datum.

REMARKS.--Records fair. Missing records April 2 to May 21, May 30 to June 27. Water level affected by pumping from nearby municipal supply wells.

PERIOD OF RECORD.--May 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.71 ft below land-surface datum, June 22, 1989; lowest, 54.29 ft below land-surface datum, Apr. 18, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

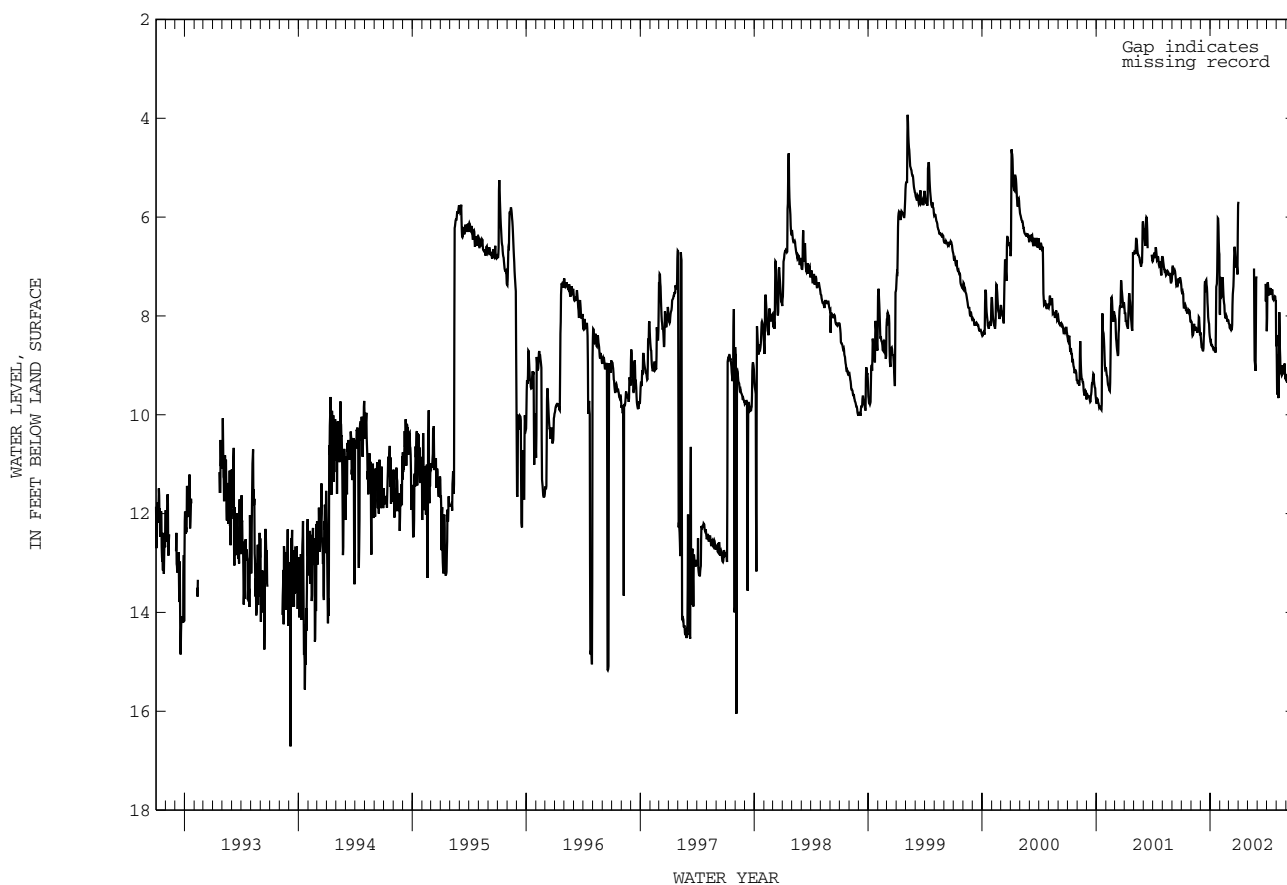
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.56	8.42	8.64	8.62	7.63	8.30	---	---	---	7.41	9.63	9.91
10	7.80	8.18	8.71	8.69	7.37	8.30	---	---	---	7.54	7.98	9.94
15	7.92	8.25	7.38	8.71	7.84	7.51	---	---	---	7.59	9.65	9.90
20	7.92	8.38	7.41	7.52	8.05	6.62	---	---	---	7.66	9.73	9.92
25	7.96	8.18	8.09	6.14	8.12	7.05	---	9.07	---	7.64	9.69	9.66
EOM	8.14	8.47	8.49	8.72	8.14	5.90	---	---	7.47	9.47	9.87	9.66

WTR YR 2002

HIGHEST 5.67 APR 1, 2002

LOWEST 9.97 SEP 4, 2001

LOWEST MONTHLY WATER LEVEL



LAUDERDALE COUNTY

353839089493500. Local number, Ld:F-4.

LOCATION.--Lat 35°38'39", long 89°49'35", Hydrologic Unit 08010208, 1.1 mi north of State Highway 87 off Crutcher Lake Rd, at Fort Pillow State Park.

Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 to 6 to 3 in., depth 879 ft, cased to 869 ft, screened 869 to 879 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 437.05 ft above NGVD of 1929. Measuring point: Top of casing, 2.80 ft above land-surface datum.

REMARKS.--Records fair. Missing records Nov. 29 to Jan. 26, May 9 to July 23.

PERIOD OF RECORD.--April 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 187.76 ft below land-surface datum, Apr. 7, 1975; lowest, 203.78 ft below land-surface datum, Oct. 10-11, 2001.

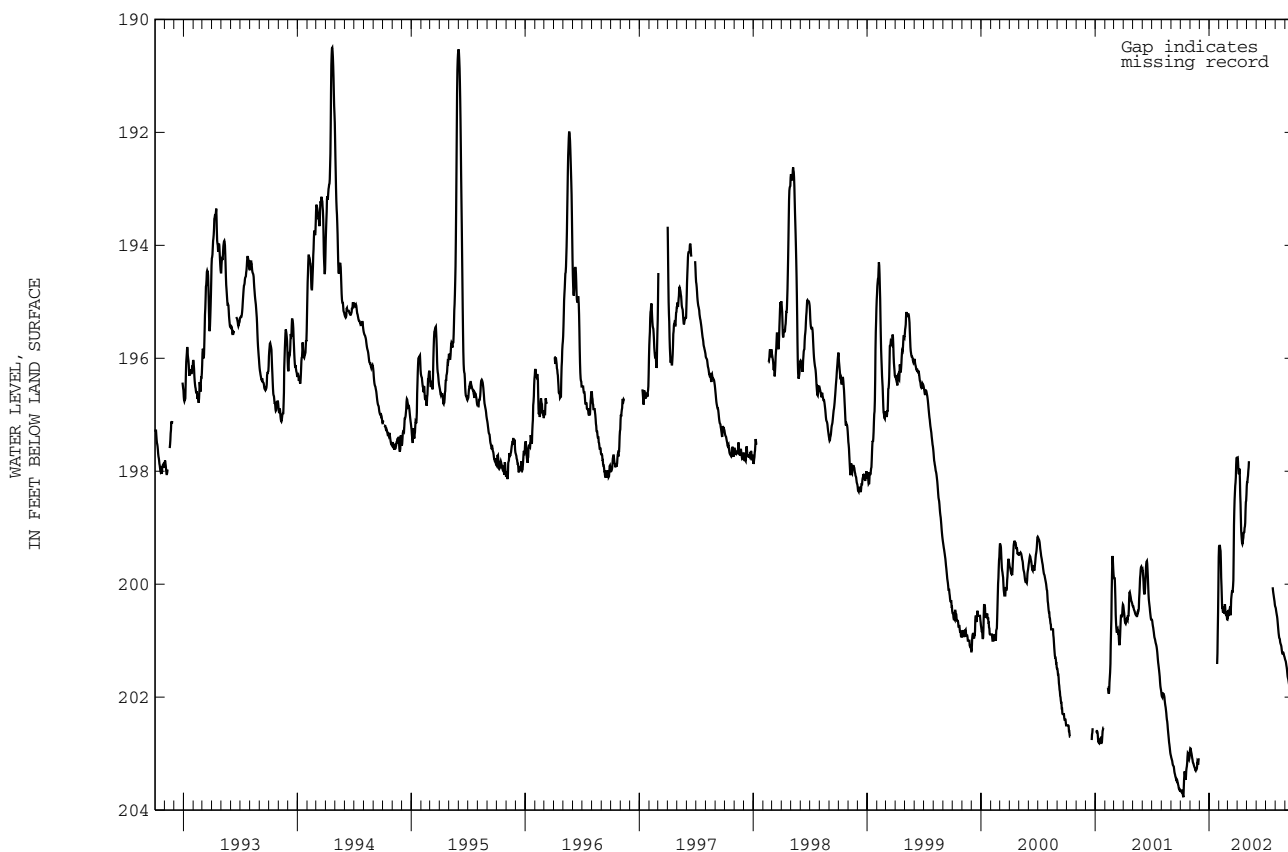
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	203.68	203.02	---	---	199.40	200.55	198.05	198.11	---	---	200.55	201.46
10	203.78	203.17	---	---	200.36	200.56	198.49	---	---	---	200.83	201.67
15	203.39	203.25	---	---	200.48	200.12	199.25	---	---	---	200.99	201.85
20	203.27	203.28	---	---	200.38	199.81	199.21	---	---	---	201.13	201.88
25	203.03	203.18	---	---	200.53	198.35	199.01	---	---	200.17	201.21	201.86
EOM	202.98	---	---	199.73	200.63	197.76	198.50	---	---	200.40	201.33	201.69

WTR YR 2002

HIGHEST 197.75 APR 2, 2002

LOWEST 203.78 OCT 10, 2001



LINCOLN COUNTY

350034086422800. Local number, Li:G-1.

LOCATION.--Lat 35°00'34", long 86°42'28", Hydrologic Unit 06030002, on west side of Pepper Road at Taft well field, 0.8 mi south of State Highway 110, at Taft.

Owner: Lincoln Count Board of Public Utilities.

AQUIFER.--Fort Payne Formation of early Mississippian age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 106.5 ft, cased to 106.5 ft, slotted from 53 to 87 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Altitude of land-surface datum is 904.00. Measuring point: Top of casing 2.10 ft above land-surface datum.

REMARKS.--Records fair. Missing records November 9 to December 6, December 18 to January 3. Water levels affected by pumpage from Taft Well field for municipal water supply.

PERIOD OF RECORD.--April 1992 to Sept. 1992, Oct. 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.10 ft below land-surface datum, Feb. 6, 2002; lowest, 56.53 ft below land-surface datum, Sept. 7, 8, 1996.

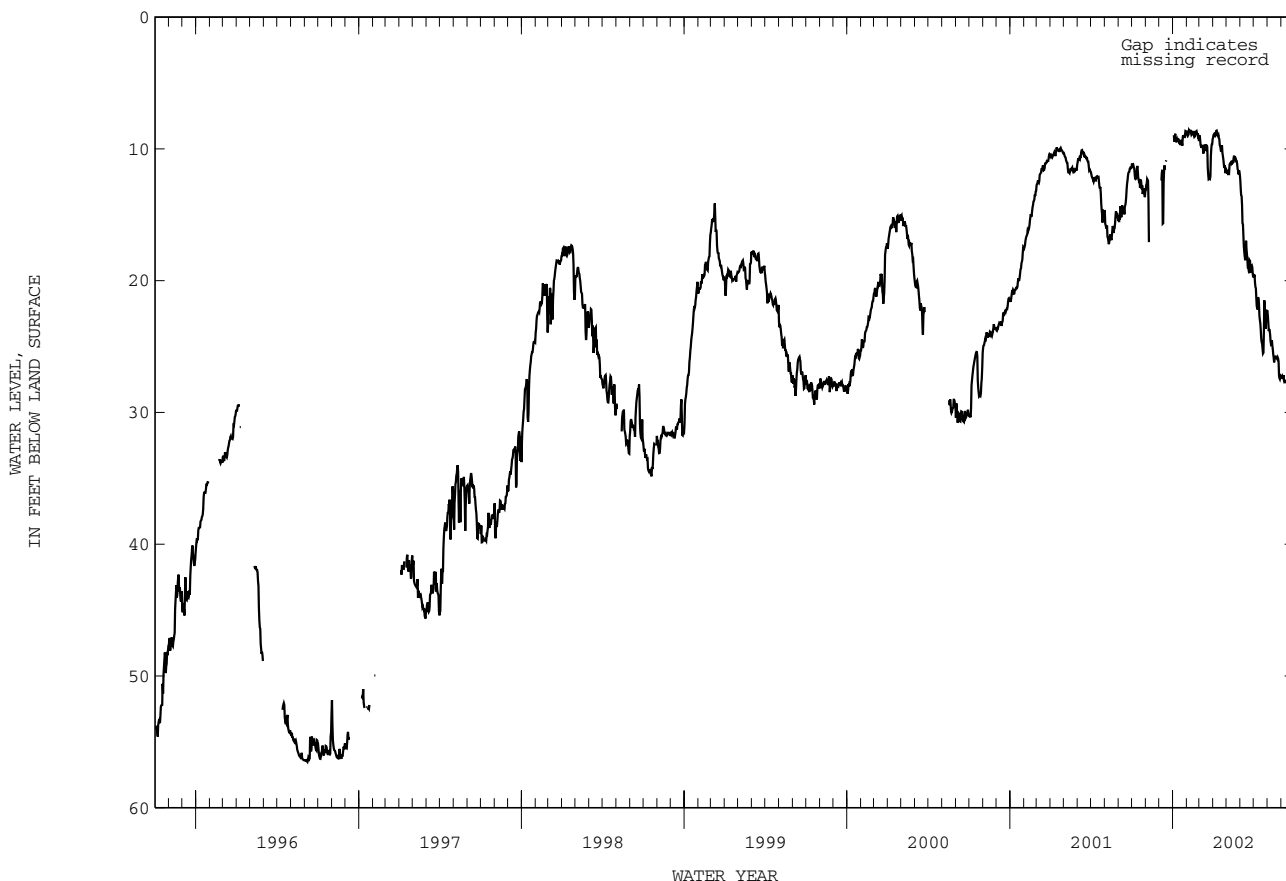
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	12.10	13.35	---	9.46	9.08	9.98	9.43	12.47	15.55	21.26	24.10	27.44
10	13.03	---	25.07	9.45	8.85	10.50	9.26	11.54	18.01	22.54	25.20	27.67
15	13.14	---	---	9.80	8.89	9.99	9.73	11.72	18.45	24.06	26.34	27.75
20	13.85	---	---	9.78	8.91	11.70	10.31	11.24	19.89	25.89	26.53	27.32
25	14.33	---	---	9.34	9.10	12.30	11.59	11.57	19.48	22.11	26.59	25.69
EOM	14.35	---	---	8.87	9.50	9.86	11.93	12.77	20.21	23.00	27.48	25.71

WTR YR 2002 HIGHEST 8.10 FEB 6, 2002

LOWEST 27.83 SEP 12, 2002

LOWEST MONTHLY WATER LEVEL



SEVIER COUNTY

353922083345600. Local number, Sv:E-2.

LOCATION.--Lat 35°39'22", long 83°34'56", Hydrologic Unit 06010201, 3.3 mi southwest of Great Smoky Mountains National Park Headquarters, near Gatlinburg.

AQUIFER.--Elkmont Sandstone of Precambrian age.

WELL CHARACTERISTICS.--Drilled unused water-table well in phyllite, sandstone, diameter 6 in., depth 220 ft, cased to 27 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface is 2,150 ft above NGVD of 1929, from topographic map. Measuring point: Floor of recorder shelter 1.5 ft above land-surface datum.

REMARKS.--Records good. No missing record. Highest water level readings may be influenced for short periods by surface inflow.

PERIOD OF RECORD.--May 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.48 ft below land-surface datum, Mar. 27, 1994; lowest, 11.66 ft below land-surface datum, Oct. 18, 19, 20, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

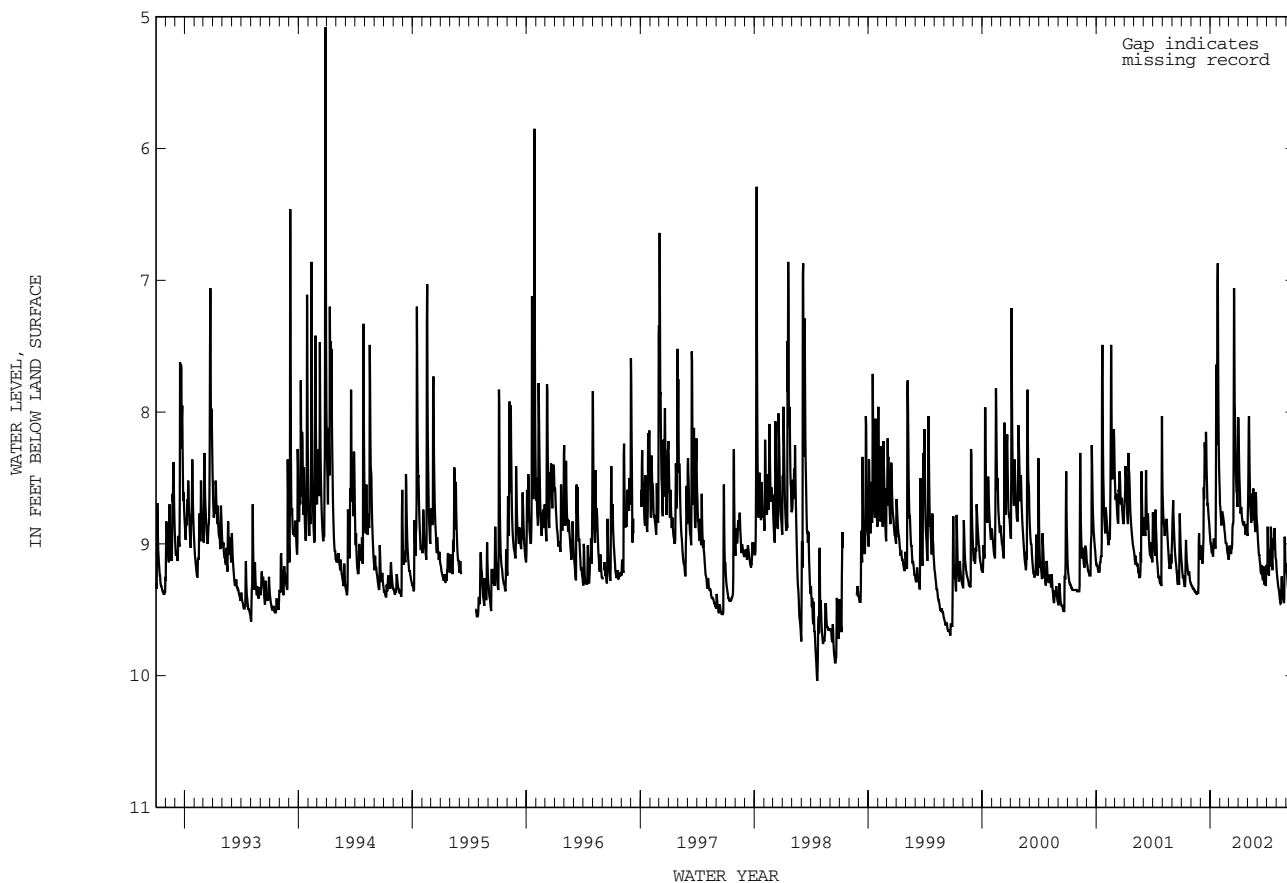
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	9.27	9.33	9.13	9.07	8.85	9.05	8.57	8.17	9.09	9.08	9.30	9.29
10	9.32	9.35	9.01	9.09	8.78	9.04	8.74	8.78	9.18	9.13	9.38	9.42
15	9.02	9.37	8.39	9.02	8.90	8.85	8.85	8.77	9.21	8.98	9.46	9.42
20	9.20	9.38	8.49	7.87	9.00	7.99	8.86	8.72	9.22	9.16	9.36	9.34
25	9.25	9.28	8.75	7.23	9.08	8.57	8.95	8.94	9.31	8.88	9.45	8.94
EOM	9.31	9.15	8.95	8.61	9.12	8.15	8.94	8.86	9.21	9.15	9.24	8.73

WTR YR 2002

HIGHEST 6.66 JAN 25, 2002

LOWEST 9.46 AUG 14, 15, 2002

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY

350857089591401. Local number, Sh: P-99.

LOCATION.--Lat 35°08'57", long 89°59'14", Hydrologic Unit 08010210, access road off North Parkway, 0.2 mi south of North Parkway, in Overton Park.
Owner: USGS and Memphis Park Commission.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 59 ft, cased to 53 ft, screened 53 to 59 ft.

INSTRUMENTATION.--Water level recorder -- 60 minute interval.

DATUM.--Elevation of land-surface datum is 271.06 ft above NGVD of 1929. Measuring point: Top of casing, 2.50 ft above land-surface datum.

REMARKS.--Records good. No missing record.

PERIOD OF RECORD.--July 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.27 ft below land-surface datum, April 30, 1991; lowest 42.58 ft below land-surface datum, November 15, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

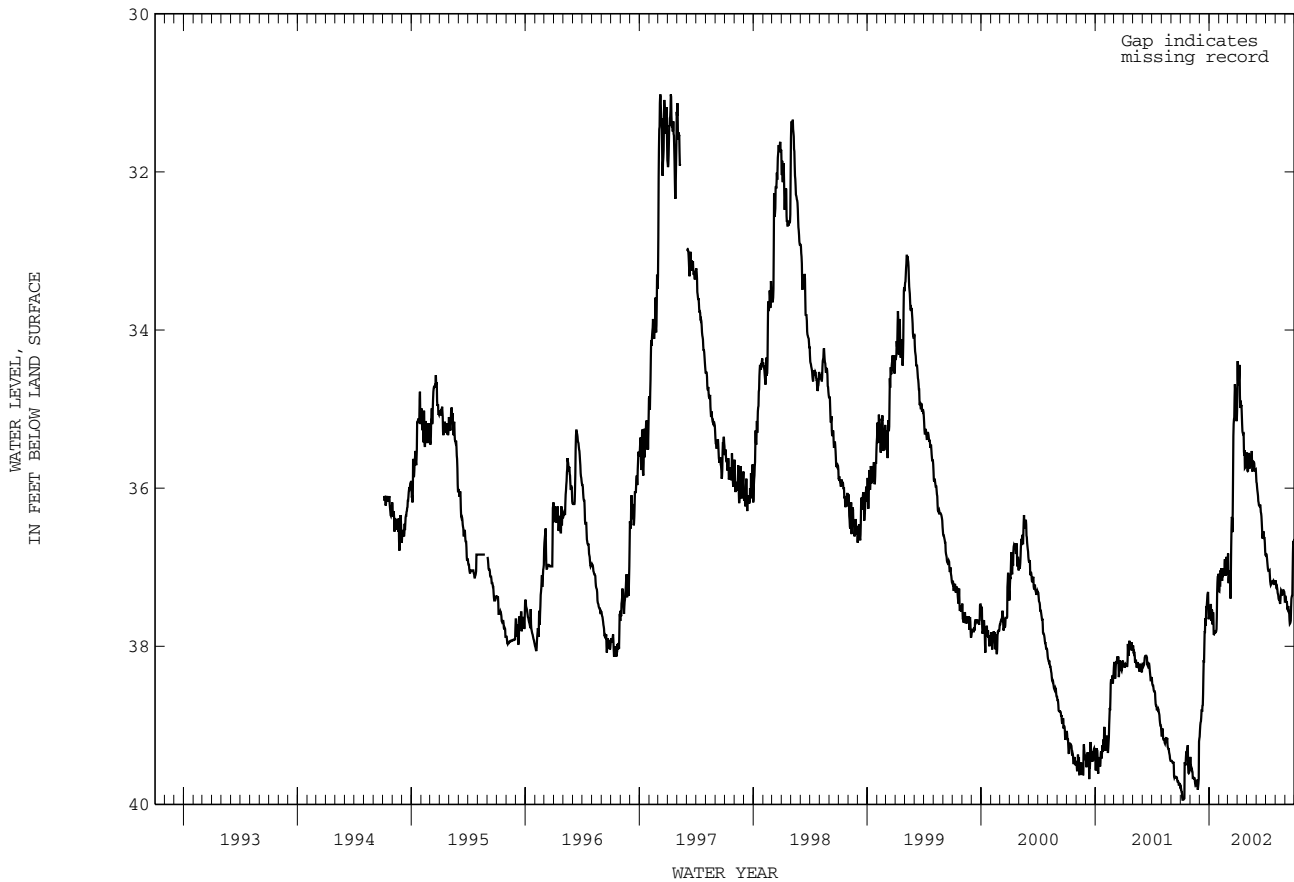
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.86	39.55	38.96	37.61	37.26	37.16	34.74	35.82	36.07	36.92	37.27	37.45
10	39.94	39.66	38.78	37.63	37.22	37.47	35.03	35.82	36.24	37.04	37.37	37.52
15	39.49	39.68	38.24	37.87	37.05	36.47	35.13	35.68	36.32	37.20	37.46	37.71
20	39.34	39.76	37.75	37.82	36.99	35.23	35.35	35.79	36.66	37.19	37.31	37.65
25	39.55	39.85	37.44	37.78	36.92	34.84	35.82	35.71	36.64	37.19	37.30	37.35
EOM	39.52	39.19	37.66	37.12	37.08	35.15	35.71	35.88	36.86	37.23	37.45	36.66

WTR YR 2002

HIGHEST 34.34 APR 2, 2002

LOWEST 39.94 OCT 6-11, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

351113089583101. Local number, Sh:P-151.

LOCATION.--Lat 35°11'13", long 89°58'31", Hydrologic Unit 08010210, 350 ft southeast of south abutment of Wolf River bridge at Hollywood Street crossing and 150 ft east of Hollywood Street; at north Hollywood Dump site.
Owner: City of Memphis and U.S. Geological Survey.

AQUIFER.--Alluvial sand and gravel of Holocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 34.2 ft, cased to 29.2 ft, screened 29.2 to 34.2 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 238.14 ft above NGVD of 1929. Measuring point: Top of inside recorder shelter shelf, 2.00 ft above land-surface datum.

REMARKS.--Records good. Missing records, Dec. 3 to 9, Aug. 26 to Sept. 2.

PERIOD OF RECORD.--October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.20 ft below land-surface datum, Mar. 19, 1997; lowest, 30.64 ft below land-surface datum, Nov. 3-4, 2000.

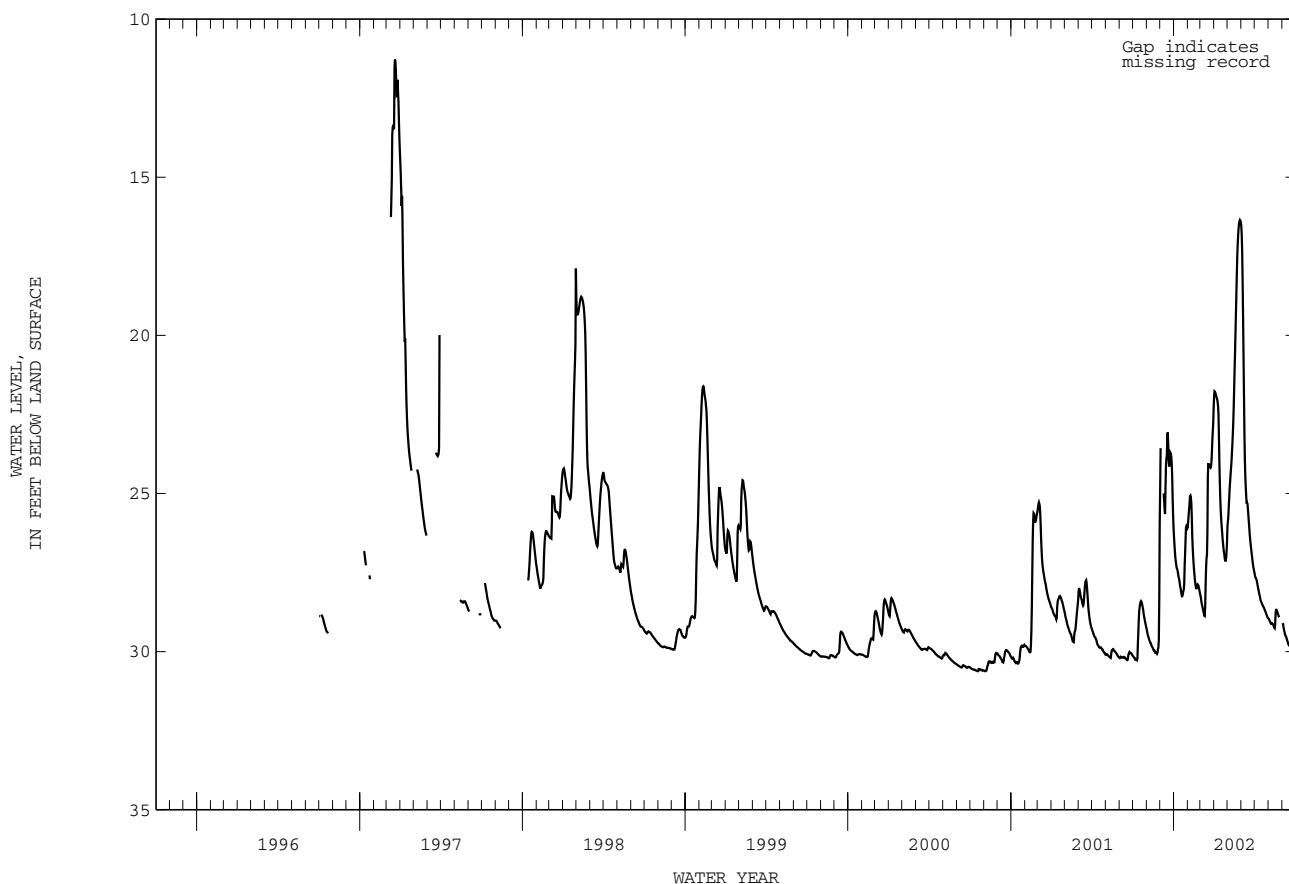
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	30.24	29.58	---	27.19	25.41	28.56	21.90	25.26	19.94	27.74	29.08	29.34
10	30.30	29.75	25.41	27.58	26.09	28.87	22.33	24.13	24.63	28.12	29.12	29.56
15	28.81	29.92	23.91	27.98	27.51	27.16	25.40	22.54	25.41	28.41	29.29	29.80
20	28.44	30.04	24.04	28.29	28.04	24.10	26.51	19.62	26.38	28.58	28.75	29.77
25	28.85	30.08	23.77	27.50	27.95	24.19	27.10	16.95	27.05	28.75	28.95	28.50
EOM	29.27	26.76	26.21	26.11	28.17	22.57	26.72	16.48	27.50	28.95	---	26.23

WTR YR 2002 HIGHEST 16.35 MAY 29, 30, 2002

LOWEST 30.30 OCT 10, 11, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

351102089582701. Local number, Sh:P-152.

LOCATION.--Lat 35°11'02", long 89°58'27", Hydrologic Unit 08010210, 1,500 ft south-southeast of abutment of Wolf River bridge at Hollywood Street crossing and 250 ft east of Hollywood Street, at north Hollywood Dump site.
Owner: City of Memphis and U.S. Geological Survey.

AQUIFER.--Alluvial sand and gravel of Holocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 28.7 ft, cased to 23.7 ft, screened 23.7 to 28.7 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 237.73 ft above NGVD of 1929. Measuring point: Top of inside recorder shelter shelf, 1.70 ft above land-surface datum.

REMARKS.--Records good. No missing record.

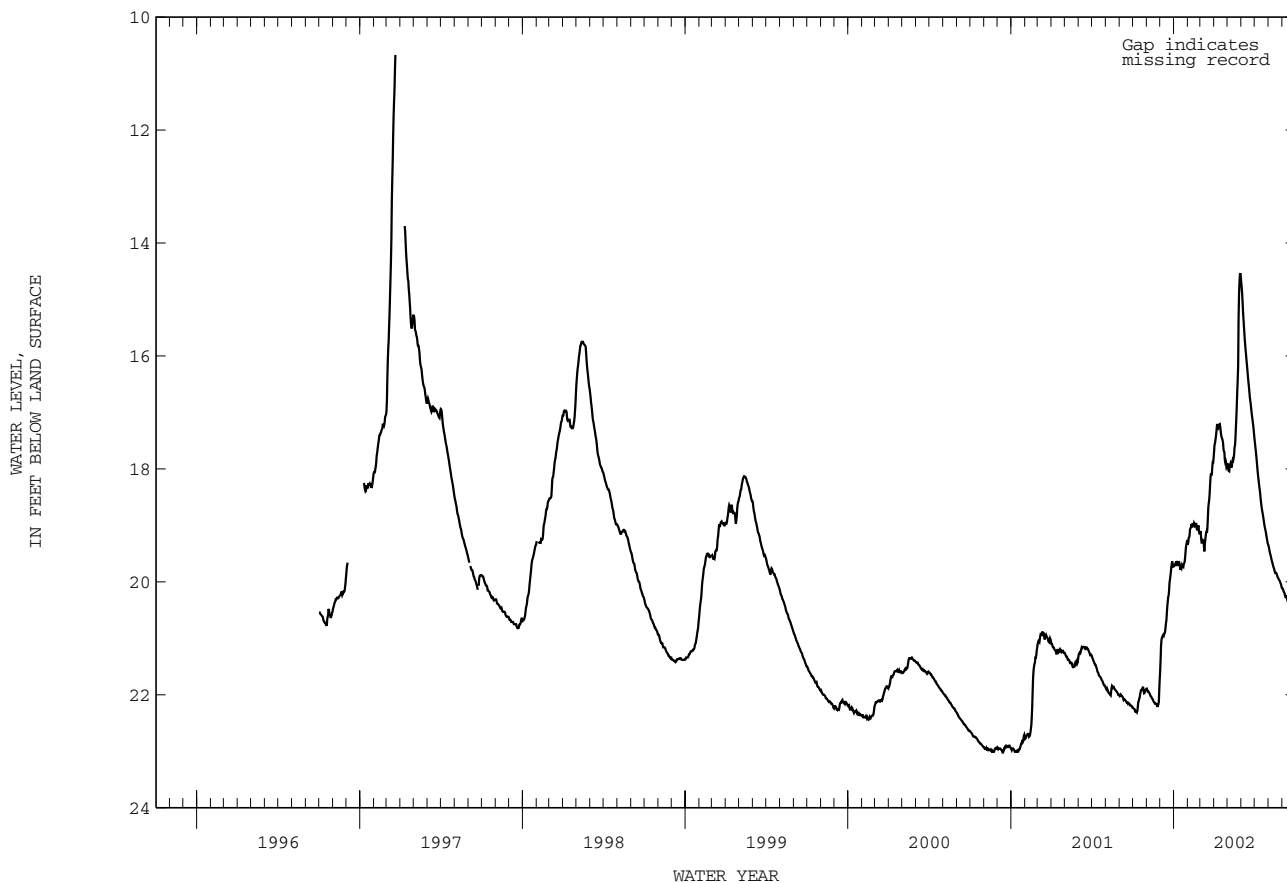
PERIOD OF RECORD.--October 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.57 ft below land-surface datum, Mar. 21, 1997; lowest, 23.02 ft below land-surface datum, Nov. 21, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	22.29	21.96	21.00	19.68	19.21	19.31	17.46	18.06	15.29	17.84	19.52	20.19
10	22.32	22.04	20.93	19.68	19.07	19.48	17.30	17.99	15.87	18.25	19.68	20.27
15	22.11	22.10	20.72	19.80	18.98	19.12	17.30	17.82	16.31	18.60	19.83	20.42
20	21.91	22.17	20.27	19.76	19.02	18.63	17.50	17.36	16.75	18.86	19.89	20.47
25	21.97	22.22	19.87	19.68	19.04	18.11	17.85	16.32	17.09	19.09	19.97	20.20
EOM	21.90	21.78	19.74	19.28	19.15	17.85	17.99	14.65	17.45	19.34	20.12	19.92
WTR YR 2002	HIGHEST 14.52			MAY 30, 2002				LOWEST 22.32			OCT 7, 2001	

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

350900089482300. Local number, Sh:Q-1.

LOCATION.--Lat 35°09'00", long 89°48'23", Hydrologic Unit 08010210, south of Macon Road, 0.6 mi west of Germantown Road, near Memphis.

Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 384 ft, cased to 375 ft, screened 375 to 384 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 330.40 ft above NGVD of 1929. Measuring point: Top of casing, 2.40 ft above land-surface datum.

REMARKS.--Records good. No missing record. Water levels affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--October 1940 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 74.08 ft below land-surface datum, Dec. 27, 1940; lowest, 114.66 ft below land-surface datum, Oct. 3, 4, 2001.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

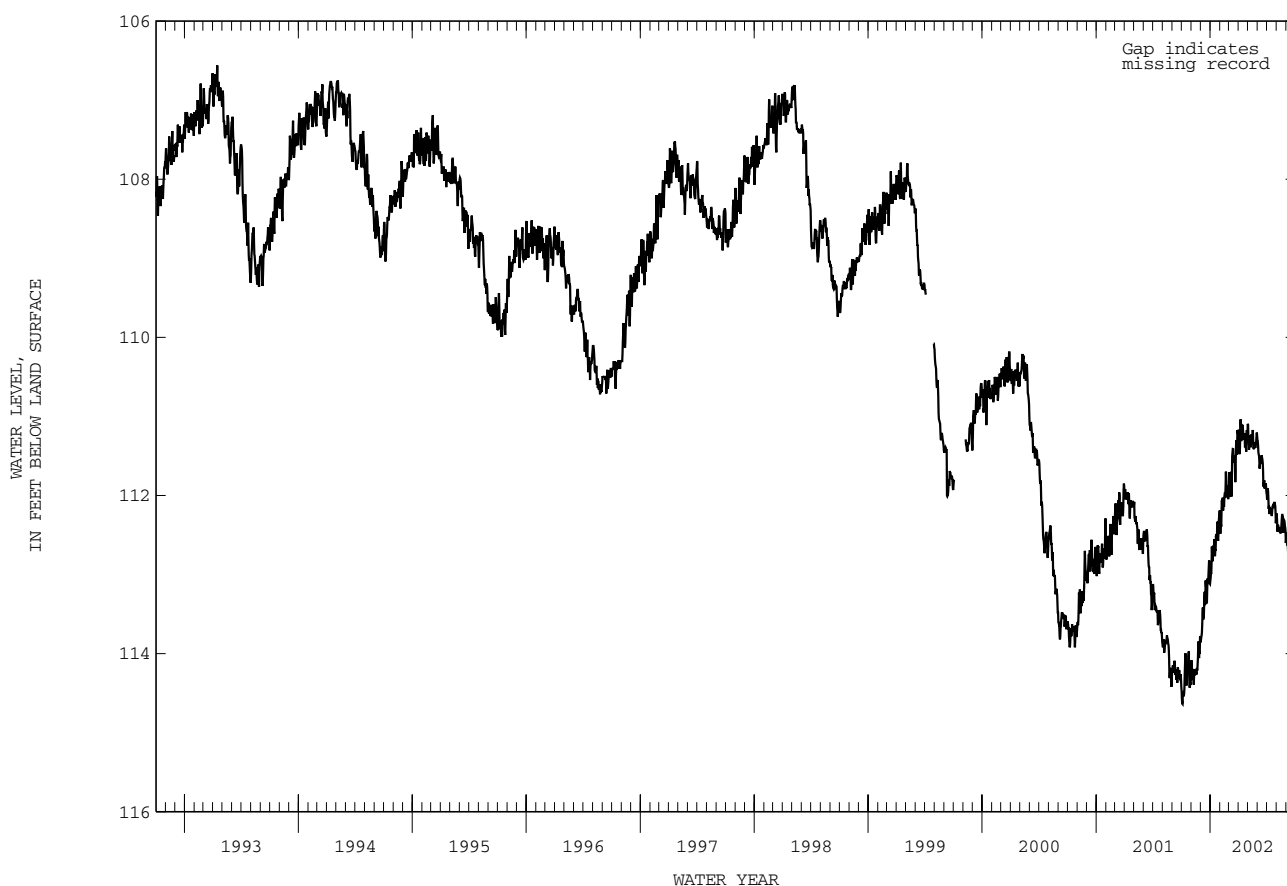
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	114.60	114.26	113.75	112.94	112.42	112.01	111.49	111.44	111.49	111.96	112.42	112.63
10	114.47	114.35	113.58	112.66	112.14	112.05	111.34	111.42	111.61	112.27	112.49	112.78
15	114.27	114.30	113.42	112.80	112.07	111.45	111.16	111.34	111.55	112.22	112.44	112.93
20	114.14	114.23	113.39	112.57	111.76	111.56	111.25	111.42	111.93	112.15	112.27	112.62
25	114.33	114.11	113.12	112.59	111.90	111.33	111.45	111.44	111.88	112.10	112.32	112.70
EOM	114.29	113.84	113.14	112.22	112.04	111.25	111.33	111.27	111.99	112.33	112.64	112.60

WTR YR 2002

HIGHEST 111.01 APR 8, 2002

LOWEST 114.66 OCT 3, 4, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

352042089523401. Local number, Sh:U-100.

LOCATION.--Lat 35°20'42", long 89°52'34", Hydrologic Unit 08010209, at Millington, 0.3 mi north of intersection of Navy Road and First Street and 300 ft west-southwest of intersection of Darkar Street and First Street, on former Naval Support Activity Mid-South Northside.

Owner: Naval Support Activity Mid-South.

AQUIFER.--Loess silt and clay of Pleistocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 4 in., depth 18 ft, cased to 8 ft, screened 8 to 18 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 274.97 ft above NGVD of 1929. Measuring point: Top of inside recorder shelter shelf, 2.44 ft above land-surface datum.

REMARKS.--Records good. No missing record.

PERIOD OF RECORD.--May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.75 ft below land-surface datum, Mar. 20, 2002; lowest, 13.94 ft below land-surface datum, Feb. 17, 18, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

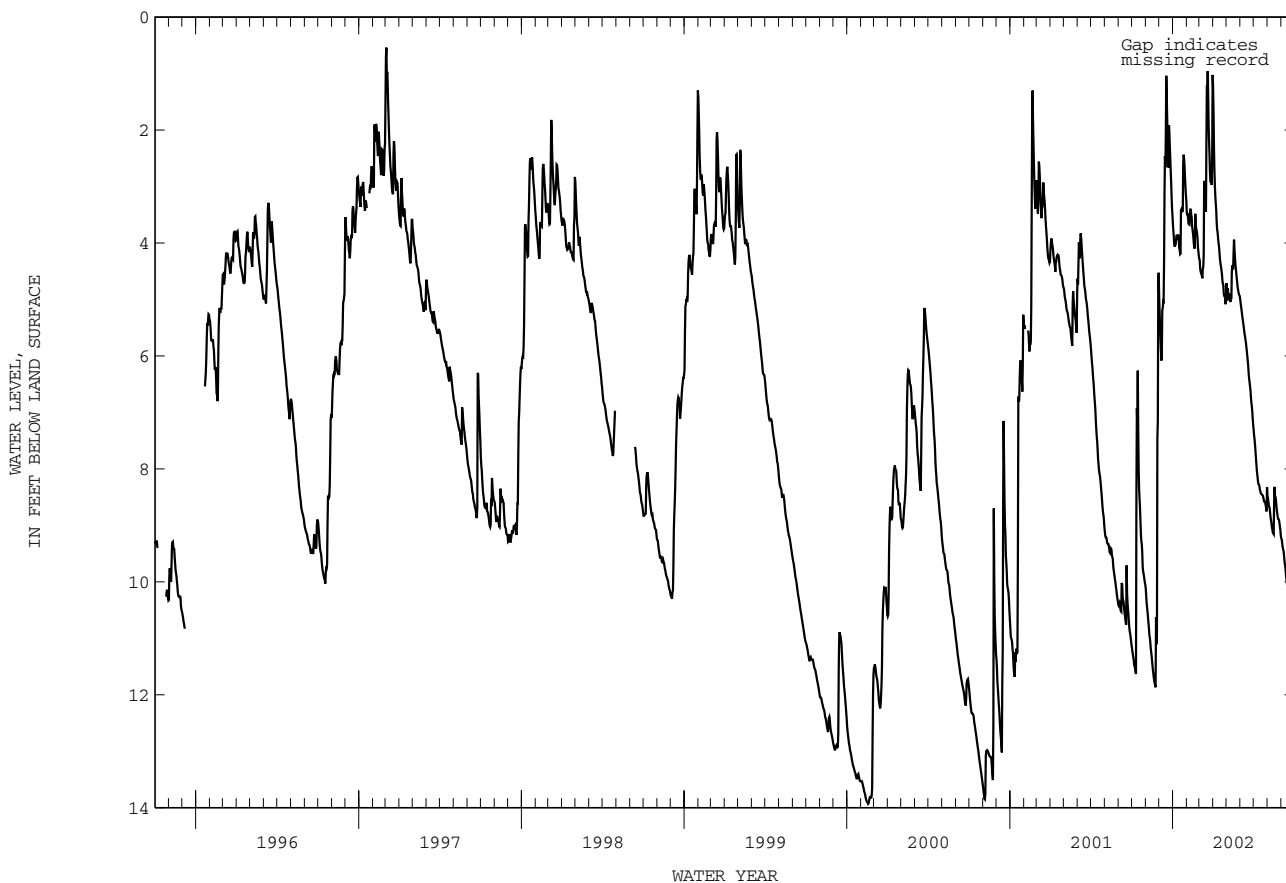
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.44	10.59	6.00	4.07	3.67	4.54	3.07	4.92	5.29	7.72	8.70	9.43
10	11.65	11.01	5.07	3.91	3.49	4.44	3.78	5.09	5.59	8.21	8.98	9.78
15	7.68	11.43	2.80	4.11	3.90	3.34	4.18	4.45	5.88	8.38	9.17	10.09
20	9.03	11.78	2.43	3.44	3.56	1.08	4.53	4.32	6.35	8.46	8.60	9.76
25	9.76	11.22	2.40	2.45	3.98	2.88	4.92	4.74	6.79	8.58	8.89	8.91
EOM	10.07	4.77	3.60	3.36	4.25	1.57	5.11	4.96	7.24	8.66	9.21	7.21

WTR YR 2002

HIGHEST 0.75 MAR 20, 2002

LOWEST 11.89 NOV 23, 24, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

352042089523402. Local number, Sh:U-101.

LOCATION.--Lat 35°20'42", long 89°52'34", Hydrologic Unit 08010209, at Millington, 0.3 mi north of intersection of Navy Road and First Street and 300 ft west-southwest of intersection of Dakar Street and First Street, on former Naval Support Activity Mid-South Northside.
Owner: Naval Support Activity Mid-South.

AQUIFER.--Fluvial sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 69 ft, cased to 59 ft, screened 59 to 69 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 275.19 ft above NGVD of 1929. Measuring point: Top of inside recorder shelter shelf, 2.62 ft above land-surface datum.

REMARKS.--Records good. No missing record.

PERIOD OF RECORD.--May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.83 ft below land-surface datum, Mar. 28-29, 1997; lowest, 24.87 ft below land-surface datum, Nov. 21, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

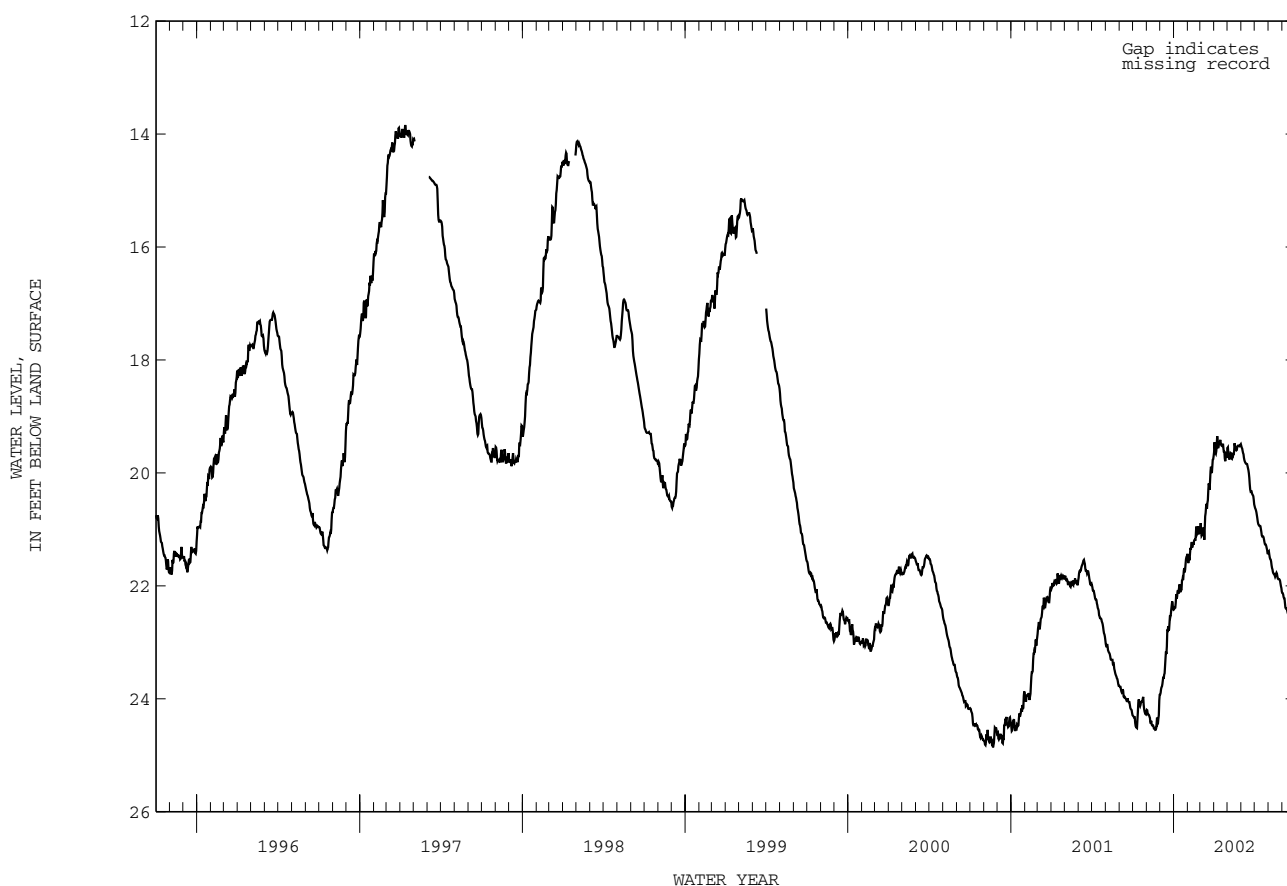
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.34	24.28	23.79	22.36	21.55	21.11	19.67	19.78	19.66	20.72	21.54	22.22
10	24.52	24.44	23.61	22.08	21.29	21.21	19.58	19.77	19.83	20.92	21.72	22.40
15	24.07	24.47	23.23	22.14	21.22	20.58	19.43	19.68	19.91	21.01	21.84	22.58
20	24.05	24.56	22.80	21.94	20.97	20.20	19.53	19.59	20.23	21.13	21.80	22.55
25	24.14	24.50	22.52	21.78	20.96	19.92	19.79	19.52	20.38	21.27	21.89	22.52
EOM	24.27	23.93	22.43	21.45	21.07	19.77	19.75	19.49	20.59	21.43	22.12	22.23

WTR YR 2002

HIGHEST 19.33 APR 8, 2002

LOWEST 24.56 NOV 20, 21, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

352042089523403. Local number, Sh:U-102.

LOCATION.--Lat 35°20'42", long 89°52'34", Hydrologic Unit 08010209, at Millington, 0.3 mi north of intersection of Navy Road and First Street and 300 ft west-southwest of intersection of Dakar Street and First Street, on former Naval Support Activity Mid-South Northside.
Owner: Naval Support Activity Mid-South.

AQUIFER.--Cockfield Formation of Claiborne Group of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 4 in., depth 115 ft, cased to 105 ft, screened 105 to 115 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 275.05 ft above NGVD of 1929. Measuring point: Top of inside recorder shelter shelf, 2.67 ft above land-surface datum.

REMARKS.--Records good. Missing records Oct. 1 to 4.

PERIOD OF RECORD.--May 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.71 ft below land-surface datum, Apr. 30 - May 4, 1997; lowest, 24.09 ft below land-surface datum, Dec. 13, 15-16, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

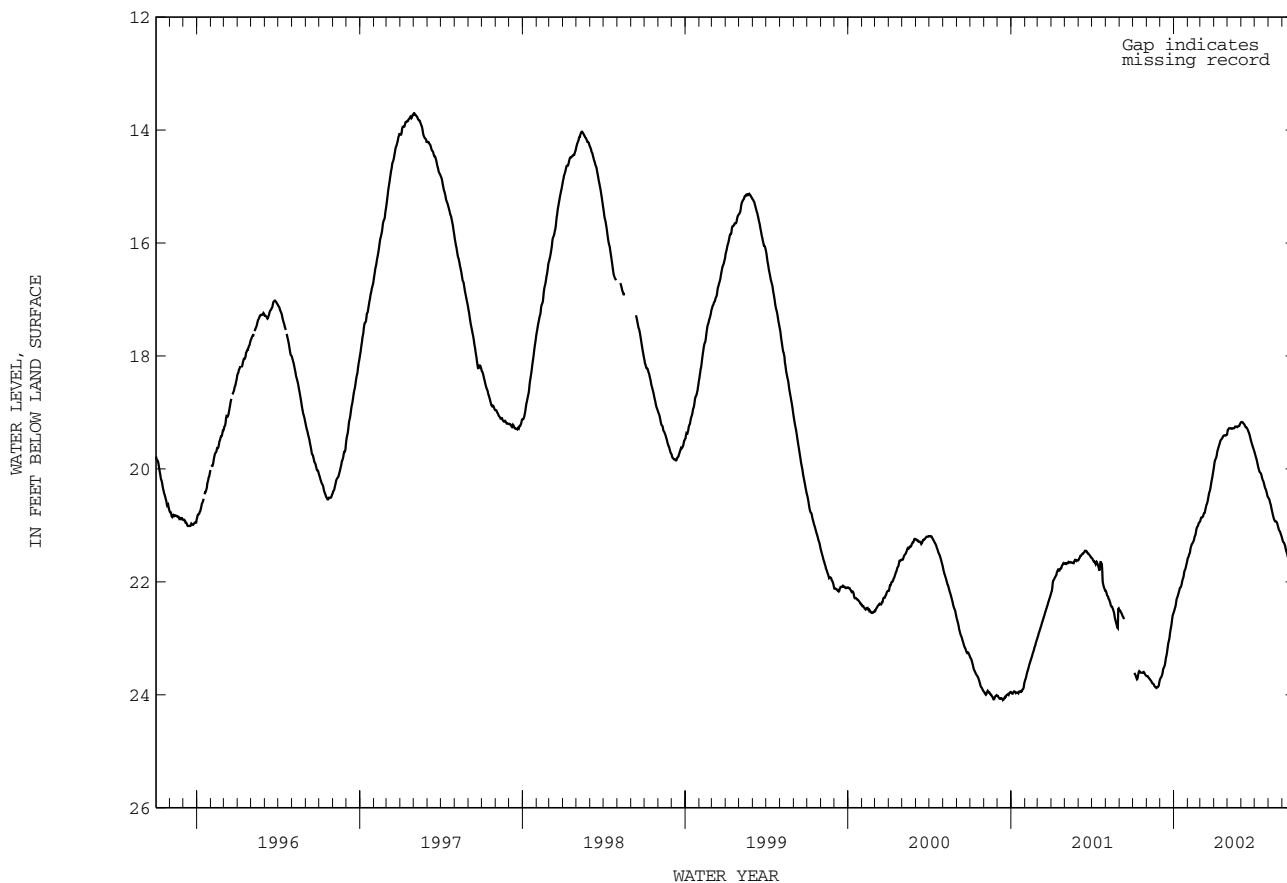
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.63	23.70	23.67	22.42	21.50	20.86	19.82	19.28	19.19	19.83	20.62	21.32
10	23.73	23.75	23.52	22.25	21.34	20.78	19.66	19.29	19.26	20.01	20.80	21.47
15	23.58	23.81	23.33	22.11	21.27	20.65	19.52	19.28	19.31	20.09	20.93	21.65
20	23.61	23.87	23.07	21.99	21.11	20.48	19.45	19.25	19.42	20.22	20.96	21.69
25	23.60	23.86	22.85	21.81	20.99	20.31	19.41	19.25	19.57	20.35	21.09	21.73
EOM	23.67	23.76	22.56	21.63	20.94	20.02	19.40	19.18	19.70	20.50	21.22	21.68

WTR YR 2002

HIGHEST 5.31 MAY 31-JUN 4, 2002

LOWEST 23.88 NOV 22-24, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

351917089515101. Local number, Sh:V-211.

LOCATION.--Lat 35°19'17", long 89°51'51", Hydrologic Unit 08010209, at Millington, 1,200 ft east of intersection of State Route 385 and Singleton Parkway, and 50 ft south of Big Creek Drainage Canal.

Owner: Tennessee Department of Transportation and Naval Support Activity Mid-South.

AQUIFER.--Alluvial sand and gravel of Holocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 50 ft, cased to 40 ft, screened 40 to 50 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 268.27 ft above NGVD of 1929. Measuring point: Top of casing, 2.58 ft above land-surface datum.

REMARKS.--Records good. No missing record. Water level affected by stage of Big Creek Drainage Canal.

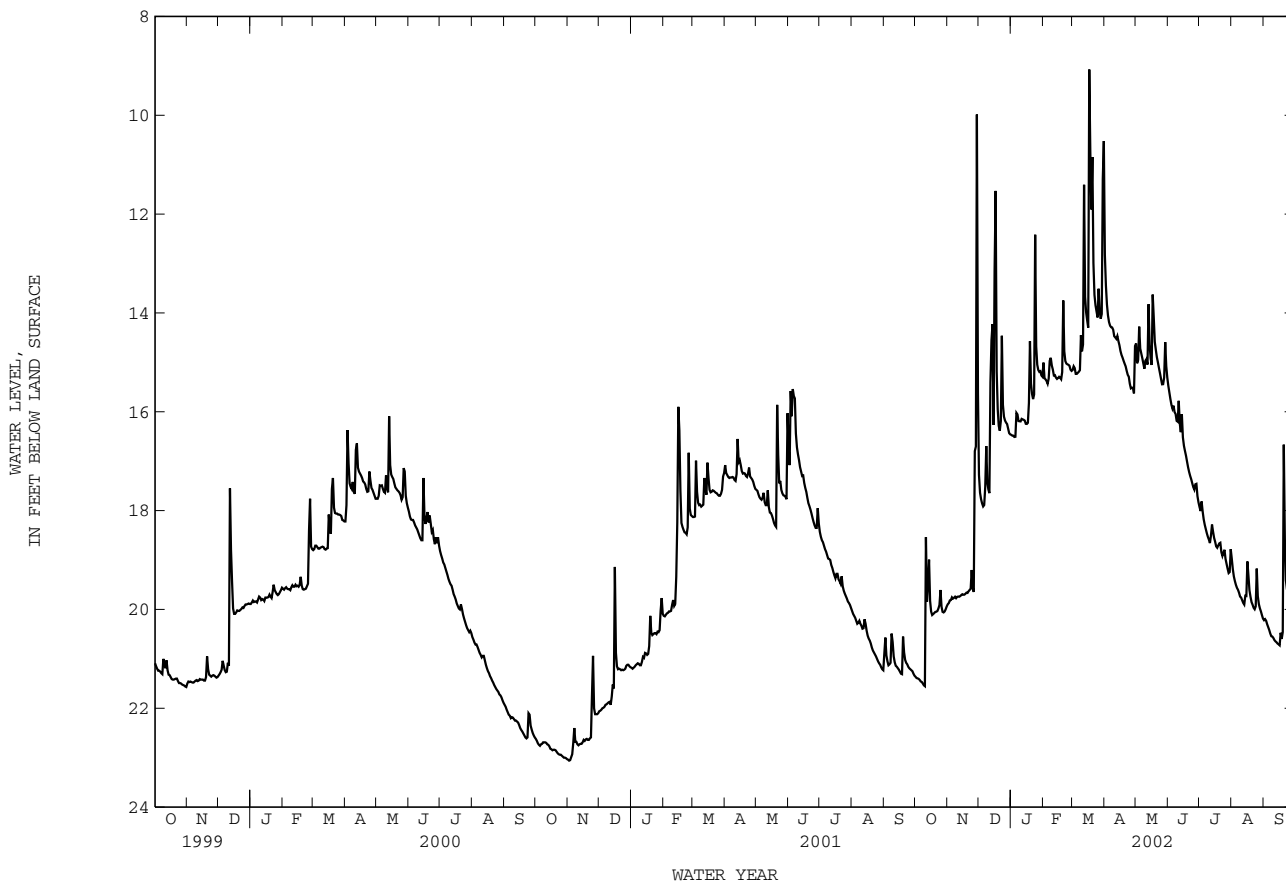
PERIOD OF RECORD.--September 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.56 ft below land-surface datum, Mar. 17, 2002; lowest, 23.07 ft below land-surface datum, Nov. 2, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.46	19.77	17.93	16.52	15.44	15.24	14.22	14.78	15.97	18.24	19.54	20.39
10	21.56	19.76	17.62	16.21	15.23	14.87	14.49	15.17	16.31	18.64	19.80	20.61
15	19.97	19.70	16.49	16.27	15.33	14.21	14.72	14.98	16.63	18.58	19.77	20.73
20	20.07	19.68	16.35	15.55	14.57	12.37	15.06	14.83	17.17	18.71	19.89	18.75
25	19.86	19.68	16.14	14.94	15.06	14.14	15.49	15.40	17.56	18.92	19.62	19.70
EOM	19.95	16.85	16.47	15.31	15.18	12.11	15.67	15.41	17.89	18.85	20.21	18.90
WTR YR 2002	HIGHEST 6.56 MAR 17, 2002					LOWEST 21.56 OCT 10, 2001						

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

351916089515101. Local number, Sh:V-212.

LOCATION.--Lat 35°19'16", long 89°51'51", Hydrologic Unit 08010209, at Millington, 1,200 ft east of intersection of State Route 385 and Singleton Parkway, and 60 ft south of Big Creek Drainage Canal.

Owner: Tennessee Department of Transportation and Naval Support Activity Mid-South.

AQUIFER.--Cockfield Formation of Claiborne Group of Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 2 in., depth 67 ft, cased to 57 ft, screened 57 to 67 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 268.26 ft above NGVD of 1929. Measuring point: Top of casing, 2.70 ft above land-surface datum.

REMARKS.--Records good. No missing record. Water level affected by stage of Big Creek Drainage Canal.

PERIOD OF RECORD.--September 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.79 ft below land-surface datum, Mar. 17, 2002; lowest, 20.94 ft below land-surface datum, Nov. 3, 2000.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

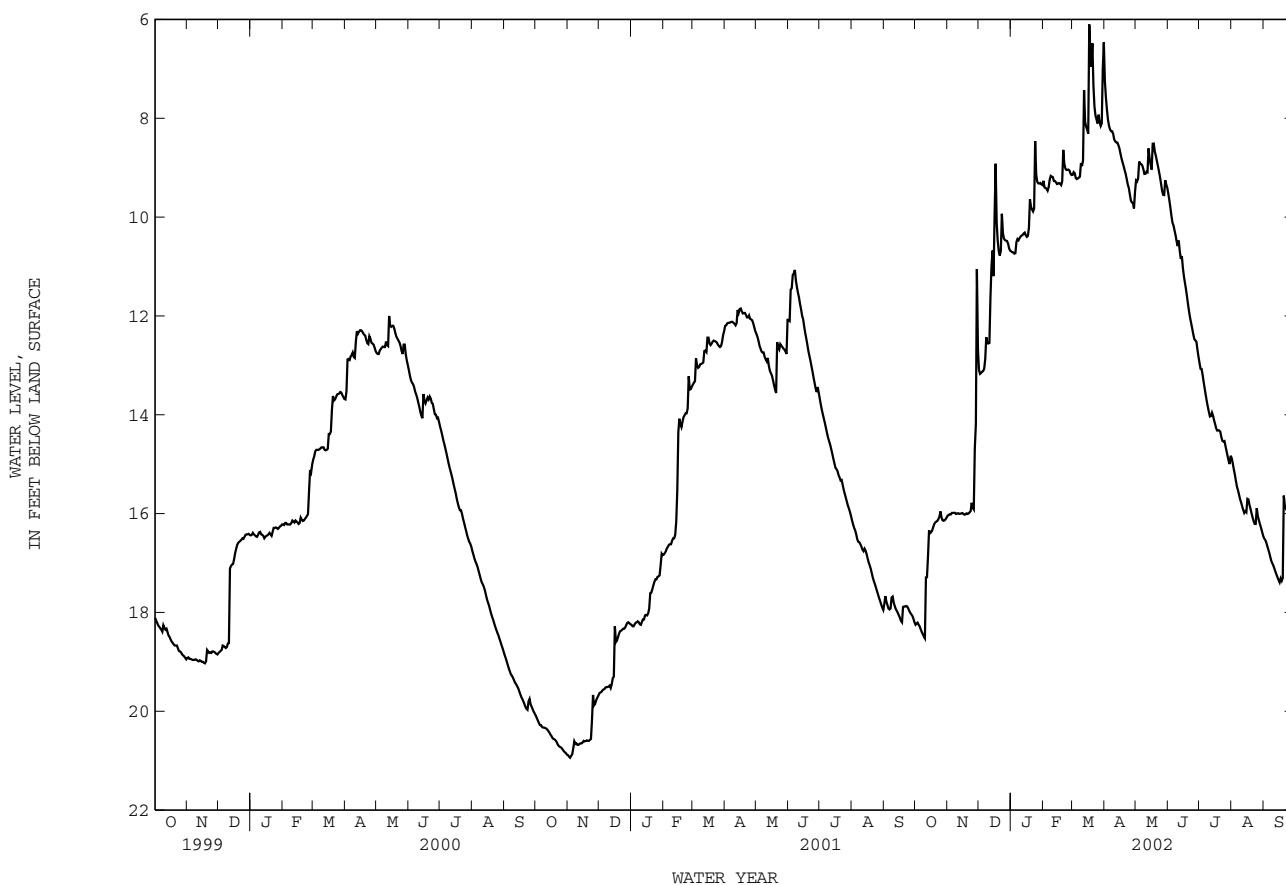
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.31	15.99	13.12	10.74	9.47	9.23	8.19	8.93	10.16	13.41	15.42	16.75
10	18.53	16.01	12.57	10.41	9.24	9.00	8.46	9.19	10.65	13.99	15.81	17.08
15	16.41	15.99	11.29	10.40	9.34	8.27	8.66	8.99	11.12	14.14	16.00	17.37
20	16.19	16.01	10.75	9.82	8.84	7.01	9.09	8.81	11.85	14.35	16.04	16.62
25	16.03	15.94	10.46	9.24	9.05	8.15	9.61	9.39	12.43	14.59	16.00	15.79
EOM	16.10	12.98	10.69	9.36	9.15	6.95	9.89	9.46	12.89	14.85	16.47	14.58

WTR YR 2002

HIGHEST 8.56 MAR 31, 2002

LOWEST 22.80 OCT 1, 2001

LOWEST MONTHLY WATER LEVEL



SHELBY COUNTY--Continued

351917089515102. Local number, Sh:V-222.

LOCATION.--Lat 35°19'17", long 89°51'51", Hydrologic Unit 08010209, at Millington, 1,200 ft east of intersection of State Route 385 and Singleton Parkway, and 40 ft south of Big Creek Drainage Canal.

Owner: Tennessee Department of Transportation and Naval Support Activity Mid-South.

AQUIFER.--Alluvial sand, silt and clay of Holocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 30 ft, cased to 20 ft, screened 20 to 30 ft.

INSTRUMENTATION.--Water-level recorder -- 60-minute interval.

DATUM.--Elevation of land-surface datum is 268.50 ft above NGVD of 1929. Measuring point: Top of casing, 2.25 ft above land-surface datum.

REMARKS.--Records poor. Missing records Oct. 2 to Dec. 15 and Jan. 29 to Mar. 28. Water levels affected by stage of Big Creek Drainage Canal.

PERIOD OF RECORD.--September 1999 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.56 ft below land-surface datum, Mar. 31, 2002; lowest, 23.94 ft below land-surface datum, Nov. 3, 2000.

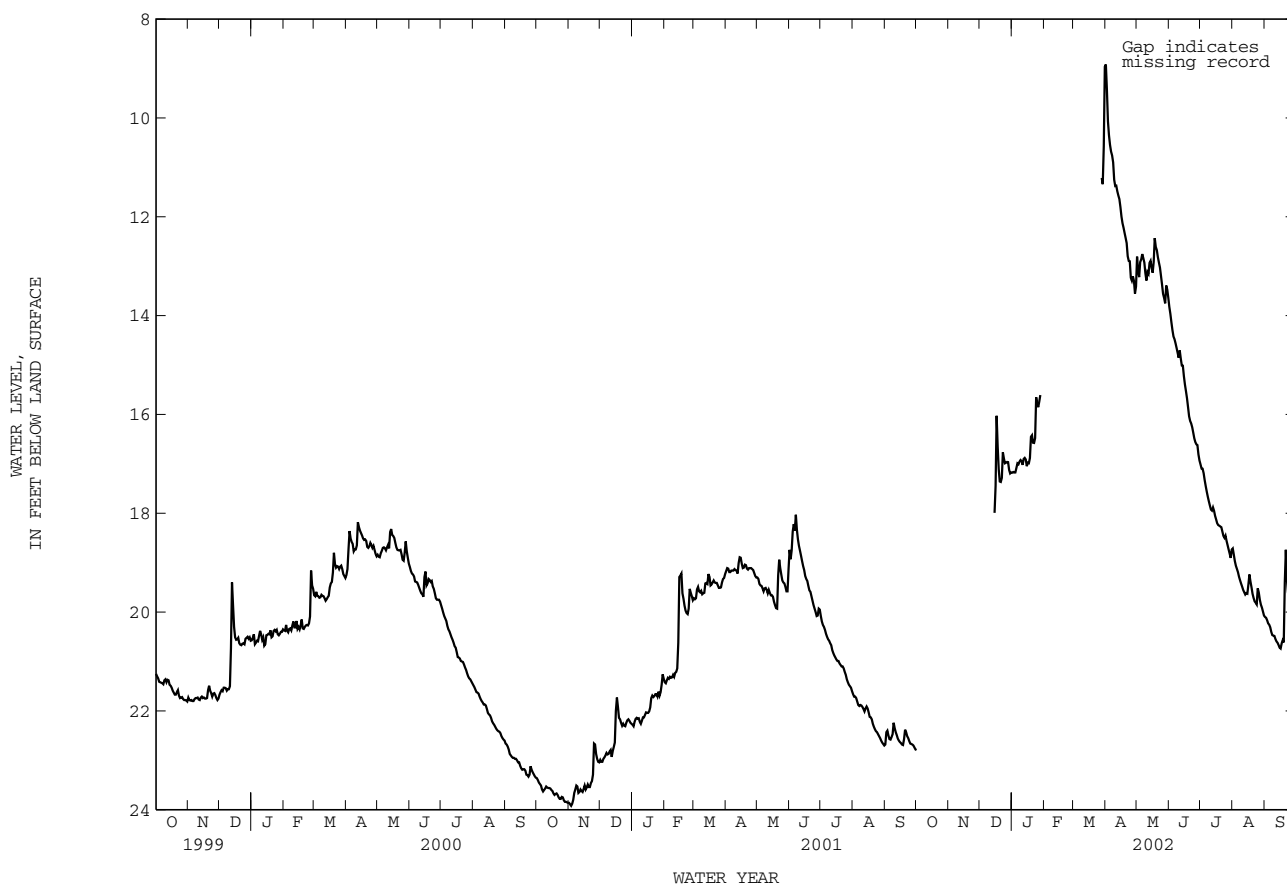
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	17.14	---	---	10.60	12.90	14.46	17.40	19.16	20.27
10	---	---	---	17.01	---	---	11.41	13.37	14.89	17.90	19.51	20.51
15	---	---	18.16	17.09	---	---	11.91	13.08	15.31	18.08	19.65	20.74
20	---	---	17.38	16.46	---	---	12.46	12.74	16.09	18.29	19.69	20.41
25	---	---	17.01	15.88	---	---	13.29	13.47	16.53	18.50	19.79	19.82
EOM	---	---	17.21	---	---	9.82	13.58	13.74	16.97	18.86	20.09	19.21

WTR YR 2002 HIGHEST 4.79 MAR 17, 2002

LOWEST 18.53 OCT 10, 2001

LOWEST MONTHLY WATER LEVEL



FAYETTE COUNTY

352226089330101. Local number, Fa:R-1.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.2 mi southeast of U.S. Highway 70, near Braden. Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 to 4 in., depth 1,025 ft, cased to 1,008 ft, screened 1,008 to 1,025 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface is 317.50 ft above NGVD of 1929. Measuring point: Top of casing 3.70 ft above land-surface datum.

PERIOD OF RECORD.--August 1949 to current year. Analog record August 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 64.89 ft below land-surface datum, Aug. 31, 1949; lowest recorded, 76.26 ft below land-surface datum, Dec. 5, 1970; highest water level measured, 73.61 ft below land-surface datum, Apr. 28, 1976; lowest measured, 97.52 ft below land-surface datum, Aug. 1, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	95.74	JAN 03	94.14	MAR 29	92.30	JUN 27	91.33	AUG 30	91.82		
31	95.54	30	93.45	APR 29	92.07	JUL 30	91.43	SEP 30	91.69		
DEC 04	94.80	FEB 27	93.0	MAY 29	91.48	AUG 14	91.61				
WATER YEAR 2002		HIGHEST	91.33	JUN 27, 2002		LOWEST	95.74	OCT 01, 2001			

352226089330102. Local number, Fa:R-2.

LOCATION.--Lat 35°22'26", long 89°33'01", Hydrologic Unit 08010209, 80 ft south of State Highway 59, 1.1 mi southeast of U.S. Highway 70, near Braden. Owner: Tennessee Division of Geology and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 to 4 in., depth 365 ft, cased to 345 ft, screened 345 to 365 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface is 317.20 ft above NGVD of 1929. Measuring point: Top of casing 4.20 ft above land-surface datum.

PERIOD OF RECORD.--October 1949 to current year. Analog record October 1949 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 37.25 ft below land-surface datum, Mar. 10, 1952; lowest recorded, 42.12 ft below land-surface datum, Nov. 30, 1967; highest water level measured, 39.00 ft below land-surface datum, Mar. 3, 1998; lowest measured, 42.57 ft below land-surface datum, Oct. 1, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01	42.57	JAN 03	42.00	MAR 29	41.20	JUN 27	41.36	AUG 30	41.88		
31	42.50	30	40.77	APR 29	41.31	JUL 30	41.72	SEP 30	41.85		
DEC 04	42.50	FEB 27	39.9	MAY 29	41.16	AUG 14	41.77				
WATER YEAR 2002		HIGHEST	39.9	FEB 27, 2002		LOWEST	42.57	OCT 01, 2001			

SHELBY COUNTY

350514089553700. Local number, Sh:K-75.

LOCATION.--Lat 35°05'14", long 89°55'37", Hydrologic Unit 08010211, at Willowview Avenue and Getwell Road, at Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Fluvial sand and gravel of Pleistocene age and possibly sand of Eocene age.

WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 6 in., depth 91 ft cased to 81 ft, screened 81 to 91 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface is 260 ft above NGVD of 1929, from topographic map. Measuring point: Top of casing 1.20 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for Memphis municipal water supply.

PERIOD OF RECORD.--August 1948 to September 1994, water-level recorder, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 21.28 ft below land-surface datum, Apr. 2, 1950; lowest recorded, 52.03 ft below land-surface datum, Jan. 13, 1988; highest water level measured, 45.73 ft below land-surface datum, July 6, 1998; lowest measured, 50.91 ft below land-surface datum, Jan. 4, 2002.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	50.83	DEC 03	50.85	JAN 31	50.80	APR 01	50.56	MAY 30	50.25	AUG 01	49.90
31	50.86	JAN 04	50.91	MAR 01	50.69	29	50.52	JUN 27	50.07	30	49.92
WATER YEAR 2002		HIGHEST	49.90	AUG 01, 2002	LOWEST	50.91	JAN 04, 2002				

3501435090005200. Local number, Sh:O-1.

LOCATION.--Lat 35°14'35", long 90°00'52", Hydrologic Unit 08010209, west side of O.K. Robertson Road, 0.4 mi north of U.S. Highway at Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 434 ft, cased to 424 ft, screened 424 to 434 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface is 228.70 ft above NGVD of 1929. Measuring point: Top of casing, 4.30 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--September 1940 to current year. Analog record September 1940 to January 1992, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 12.65 ft below land-surface datum, Sept. 3, 1940; lowest recorded, 68.82 ft below land-surface datum, Aug. 24, 1988; highest water level measured, 50.16 ft below land-surface datum, Mar. 29, 1994; lowest measured, 65.75 ft below land-surface datum, Sept. 7, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	61.70	DEC 04	58.93	JAN 29	56.65	MAR 27	54.74	MAY 29	50.46	AUG 05	58.34
NOV 01	60.77	JAN 04	57.50	FEB 28	56.57	MAY 01	52.85	JUL 01	55.61	SEP 04	58.87
WATER YEAR 2002		HIGHEST	50.46	MAY 29, 2002	LOWEST	61.70	OCT 02, 2001				

SHELBY COUNTY--Continued

350735089593300. Local number, Sh:P-76.

LOCATION.--Lat 35°07'35", long 89°59'33", Hydrologic Unit 08010210, at Central Avenue and Tanglewood Street, at Memphis. Owner: Memphis Light, Gas and Water Division, City of Memphis.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface is 286.70 ft above NGVD of 1929. Measuring point: Top of casing 1.30 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for municipal and industrial water supply in the Memphis area.

PERIOD OF RECORD.--October 1928 to current year. Analog record October 1928 to September 1997, periodic tape measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 58.65 ft below land-surface datum, Apr. 3, 1933; lowest, 147.31 ft below land-surface datum, June 30, 1988.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	121.11	DEC 07	119.45	JAN 31	118.71	MAR 29	114.59	MAY 30	115.52	AUG 01	122.40
31	120.70	JAN 04	118.16	FEB 28	118.27	MAY 01	118.75	JUN 28	121.70	SEP 04	122.05
WATER YEAR 2002		HIGHEST	114.59	MAR 29, 2002		LOWEST	122.40	AUG 01, 2002			

352112089571200. Local number, Sh:U-1.

LOCATION.--Lat 35°21'12", long 89°57'12", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville, Owner: Mrs. T. S. Welch

AQUIFER.--Fort Pillow Sand of Wilcox Group of early Eocene age

WELL CHARACTERISTICS.--Drilled artesian unused well, diameter 24 to 16 in., depth 1,558 ft, cased to 1,497 ft, screened 1,497 to 1,558 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 264.20 ft above NGVD of 1929. Measuring point: Top of casing 0.60 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--August 1946 to current year. Analog record March 1948 to January 1971, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 35.5 ft below land-surface datum, Apr. 11, 1948; lowest recorded, 60.42 ft below land-surface datum, Dec. 20, 1970; highest water level measured, 33.20 ft, Apr. 21, 1947; lowest measured, 90.00 ft below land-surface datum, Aug. 29, 2001.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	89.99	DEC 04	87.12	FEB 28	84.98	MAY 29	81.70	SEP 04	85.70		
12	89.45	JAN 04	85.81	MAR 27	83.80	JUL 01	83.93				
NOV 01	88.62	29	85.11	MAY 01	82.93	AUG 05	85.08				
WATER YEAR 2002		HIGHEST	81.70	MAY 29, 2002		LOWEST	89.99	OCT 02, 2001			

PERIODIC MEASUREMENTS OF GROUND-WATER LEVELS

SHELBY COUNTY--Continued

352112089571300. Local number, Sh:U-2.

LOCATION.--Lat 35°21'12", long 89°57'13", Hydrologic Unit 08010209, 3 mi west of Millington at Shelby Road and Shake Rag Road, Sloanville. Owner: Mrs. F. E Byrd

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 to 12 in., depth 440 ft, cased to 360 ft, screened 360 to 440 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 268.70 ft above NGVD of 1929. Measuring point: Top of casing 1.60 ft above land-surface datum.

REMARKS.--Water level affected by pumpage for municipal and industrial water supply at Millington and Memphis.

PERIOD OF RECORD.--June 1953 to current year. Analog record June 1953 to December 1970, periodic tape measurements or monthly maximum-minimum recorder thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 39.59 ft below land-surface datum, June 29, 1953; lowest, 64.88 ft below land-surface datum, Sept. 7, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02	63.78	DEC 04	62.92	JAN 29	61.58	MAR 27	60.15	MAY 29	57.44	AUG 05	60.87
NOV 01	63.50	JAN 04	61.93	FEB 28	61.02	MAY 01	59.29	JUL 01	59.50	SEP 04	61.35
WATER YEAR 2002		HIGHEST	57.44	MAY 29, 2002	LOWEST	63.78	OCT 02, 2001				

CRITTENDED COUNTY, AR

350344090130000. Local number, Ar:H-2.

LOCATION.--Lat 35°03'44", long 90°13'00", Hydrologic Unit 08020203, 0.7 mi east of Millers. Owner: Memphis Light, Gas, and Water Division, City of Memphis, and U.S. Geological Survey.

AQUIFER.--Memphis Sand of Claiborne Group of middle Eocene age.

WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 6 in., depth 502 ft, cased to 482 ft, screened 482 to 502 ft.

INSTRUMENTATION.--Periodic measurements by USGS personnel.

DATUM.--Elevation of land-surface datum is 211 ft above NGVD of 1929, from topographic map. Measuring point: Inside top of shelter base plate, 3.30 ft above land-surface datum.

REMARKS.--Well affected by pumpage in the Memphis, Tennessee area. Records good.

PERIOD OF RECORD.--May 1983 to current year. Analog record from May 1983 to October 1995, periodic measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.28 ft below land-surface datum, May 30, 31, 1983; lowest, 33.39 ft below land-surface datum, Oct. 31, 2000.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03	33.06	DEC 07	29.56	JAN 30	27.62	MAR 28	25.53	MAY 30	21.78	JUL 31	28.20
NOV 01	31.80	JAN 04	29.90	FEB 28	28.67	APR 30	25.09	JUN 28	25.69	SEP 03	29.86
WATER YEAR 2002		HIGHEST	21.78	MAY 30, 2002	LOWEST	33.06	OCT 03, 2001				

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM

The following wells located in the Lower Tennessee River basin were sampled as part of the U.S. Geological Survey's National Water Quality Assessment Program to characterize water quality of major aquifers and to assess the occurrence and distribution of nutrients, pesticides, and volatile organic compounds in ground water.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

CROCKETT COUNT

	Local ident- i- fier	Station	number	Date	Time	ELEV. OF LAND	DEPTH	SPE- CIFIC	PH	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC	TUR- BID- ITY (NTU) (00076)
						SURFACE DATUM (FT. ABOVE NGVD) (72000)	OF WELL, TOTAL (FEET) (72008)	CON- DUCT- ANCE (US/CM) (00095)	WATER WHOLE FIELD (STAND- ARD UNITS) (00400)		PRES- SURE (MM OF HG) (00025)	
CK:J- 4	CITY OF FRIENDSHI	355437089144301		06-11-02	1030	389.00	330.00	114	6.0	17.0	763	.30
	Local ident- i- fier	Date	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- CENT (00301)	HARD- NESS TOTAL (MG/L) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) (00925)	SODIUM, DIS- SOLVED (MG/L) (00930)	SODIUM PERCENT (00932)	SODIUM RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) (00935)
CK:J- 4	CITY OF F	06-11-02	.1	0	43	--	9.51	4.69	5.93	22	.4	1.46
	Local ident- i- fier	Date	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) (00950)	BROMIDE DIS- SOLVED (MG/L) (00950)	SILICA, DIS- SOLVED (MG/L) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
CK:J- 4	CITY OF F	06-11-02	62	51	2.4	2.13	.1	.10	14.1	78	72	.11
	Local ident- i- fier	Date	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L) AS N) (00623)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L) AS P) (00671)	ALUM- INUM, DIS- SOLVED (MG/L) AS AL) (01106)	ANTI- MONY, DIS- SOLVED (MG/L) AS SB) (01095)	ARSENIC DIS- SOLVED (MG/L) AS AS) (01000)	BARIUM, DIS- SOLVED (MG/L) AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (MG/L) AS BE) (01010)
CK:J- 4	CITY OF F	06-11-02	<.008	<.05	E.03	<.10	<.02	<1	<.05	.3	162	E.03
	Local ident- i- fier	Date	BORON, DIS- SOLVED (UG/L) AS B) (01020)	CADMIUM DIS- SOLVED (UG/L) AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L) AS CR) (01030)	COBALT, DIS- SOLVED (UG/L) AS CO) (01035)	COPPER, DIS- SOLVED (UG/L) AS CU) (01040)	IRON, DIS- SOLVED (UG/L) AS FE) (01046)	LEAD, DIS- SOLVED (UG/L) AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L) AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L) AS MO) (01060)
CK:J- 4	CITY OF F	06-11-02	7	E.02	<.8	1.83	2.3	636	15.4	2.1	185	<.2
	Local ident- i- fier	Date	NICKEL, DIS- SOLVED (UG/L) AS NI) (32103)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE) (32104)	SILVER, DIS- SOLVED (UG/L) AS AG) (32105)	STRON- TIUM, DIS- SOLVED (UG/L) AS SR) (32106)	VANA- DIUM, DIS- SOLVED (UG/L) AS V) (34010)	ZINC, DIS- SOLVED (UG/L) AS ZN) (34030)	RADON 222 TOTAL (PCI/L) (34301)	RN-222 2 SIGMA WATER, WHOLE TOTAL, (PCI/L) (34311)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (34371)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (34413)
CK:J- 4	CITY OF F	06-11-02	2.43	<.3	<1	115	1.9	24	80	17	<.05	<.06
	Local ident- i- fier	Date	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)
CK:J- 4	CITY OF F	06-11-02	<.1	<.06	<.2	.13	<.05	<.04	<.03	<.1	<.03	<.3

QUALITY OF GROUND WATER

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

CROCKETT COUNTY--Continued

Local ident- i- fier	Date	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLO- ETHYL- TOTAL (UG/L) (34475)	TRI- CHLO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLO- WATER UNFLTRD REC (UG/L) (34536)
CK:J- 4	CITY OF F 06-11-02	<.2	<.2	.17	<.09	<.04	<.04	<.03	<.06	<.09	<.03
Local ident- i- fier	Date	1,2-DI- CHLO- PROPANE TOTAL (UG/L) (34541)	TRANS- 1,2-DI- CHLO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)
CK:J- 4	CITY OF F 06-11-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
Local ident- i- fier	Date	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
CK:J- 4	CITY OF F 06-11-02	<.004	<.006	<.007	<.005	<.002	<.005	<.018	<.006	<.005	<.005
Local ident- i- fier	Date	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THION, WATER, DISS SOLVED (UG/L) (39532)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, WATER, DISS SOLVED (UG/L) (39542)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
CK:J- 4	CITY OF F 06-11-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
Local ident- i- fier	Date	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPIC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
CK:J- 4	CITY OF F 06-11-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
Local ident- i- fier	Date	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
CK:J- 4	CITY OF F 06-11-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
Local ident- i- fier	Date	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)			
CK:J- 4	CITY OF F 06-11-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

OBION COUNTY

Local ident- i- fier	Station	number	Date	Time	ELEV. OF LAND SURFACE DATUM (FT. WELL, ABOVE NGVD) (72000)	DEPTH OF TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	TUR- BID- ITY (NTU) (00076)
UNION CITY, TN	362552089032001		06-10-02	1600	352.	886.	103	5.8	18.5	764	.09
Local ident- i- fier	Date	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM, AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
		06-10-02	.1	0	37	--	8.90	3.49	6.16	26	.4
Local ident- i- fier	Date	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
		06-10-02	60	49	1.8	1.85	E.1	E.02	9.40	71	63
Local ident- i- fier	Date	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)
		06-10-02	<.008	<.05	<.04	<.10	<.02	<1	<.05	<.2	42
Local ident- i- fier	Date	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
		06-10-02	E6	<.04	<.8	.10	<.2	419	<.08	.6	8.4
Local ident- i- fier	Date	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	RADON 222 WHOLE, TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, CHLORO- METHANE TOTAL (PCI/L) (76002)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)
		06-10-02	.70	<.3	<1	59.5	2.4	6	80	19	<.05
Local ident- i- fier	Date	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	TOLUENE TOTAL (UG/L) (34010)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)
		06-10-02	<.1	<.06	<.2	<.02	<.05	<.04	<.03	<.1	<.03
Local ident- i- fier	Date	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)
		06-10-02	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09

QUALITY OF GROUND WATER

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

OBION COUNTY--Continued

Local ident- i- fier	Date	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)	TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)
UNION CITY, TN	06-10-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
Local ident- i- fier	Date	ALA- CHLOR, WATER, DISS, REC (UG/L) (46342)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	ALPHA BHC DISS, SOLVED (UG/L) (34253)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CHLOR- PYRIFOS DISS, SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DISS, SOLVED (UG/L) (39572)	DI- ELDRIN DISS, SOLVED (UG/L) (39381)
UNION CITY, TN	06-10-02	<.004	<.006	<.007	<.005	<.002	<.005	<.018	<.006	<.005	<.005
Local ident- i- fier	Date	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DISS, SOLVED (UG/L) (39542)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
UNION CITY, TN	06-10-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
Local ident- i- fier	Date	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA ETHYL WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
UNION CITY, TN	06-10-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
Local ident- i- fier	Date	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- CIS METHRIN WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
UNION CITY, TN	06-10-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
Local ident- i- fier	Date	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)			
UNION CITY, TN	06-10-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SHELBY COUNTY

Local ident- i- fier	Station number	Date	Time	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	TUR- BID- ITY (NTU) (00076)	
SH:UR-11	350229089525601	04-15-02	1800	291	52.75	904	6.0	19.0	763	1.0	
SH:UR-31	350424089593901	04-16-02	0900	235	42.7	313	6.3	22.0	767	1.0	
Sh:P- 99	350857089591401	04-18-02	1200	271.06	59.0	770	6.6	17.0	770	1.0	
SH:UR-29	351147089482701	04-17-02	1530	290	87	172	6.0	21.0	764	.0	
SH:UR-8	351201089525501	04-17-02	1106	278	44	144	5.8	19.5	764	1.0	
SH:UR-6	351403089552601	04-16-02	1600	310	40	405	6.0	23.0	766	28	
Local ident- i- fier	Date	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB DISSOLV FLD. AS CACO3 (MG/L) (00904)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
SH:UR-11	04-15-02	.2	2	160	80	35.0	17.1	117	61	4	2.29
SH:UR-31	04-16-02	.2	2	140	15	39.4	9.66	7.53	10	.3	1.92
Sh:P- 99	04-18-02	.1	1	370	9	74.7	44.1	34.2	17	.8	.79
SH:UR-29	04-17-02	4.8	54	38	--	8.24	4.24	22.2	55	2	.83
SH:UR-8	04-17-02	.9	10	34	--	7.67	3.59	19.9	56	1	.34
SH:UR-6	04-16-02	2.9	34	100	--	21.2	12.4	43.1	47	2	.18
Local ident- i- fier	Date	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (MG/L AC-FT) (70303)
SH:UR-11	04-15-02	96	78	21.2	211	.1	2.14	34.7	532	490	.72
SH:UR-31	04-16-02	150	123	8.9	7.13	.2	.09	29.9	190	184	.26
Sh:P- 99	04-18-02	438	359	54.9	8.63	.2	.38	27.8	485	464	.66
SH:UR-29	04-17-02	56	46	3.2	9.35	E.1	.06	14.5	112	116	.15
SH:UR-8	04-17-02	72	59	2.4	6.68	.1	.09	41.5	116	124	.16
SH:UR-6	04-16-02	133	109	21.4	36.8	.2	.30	59.5	267	274	.36
Local ident- i- fier	Date	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)
SH:UR-11	04-15-02	<.008	.08	<.04	<.10	.03	<1	.07	.7	410	<.06
SH:UR-31	04-16-02	<.008	<.05	.52	.60	E.01	<1	.05	E.1	131	<.06
Sh:P- 99	04-18-02	<.008	.66	<.04	<.10	.03	<1	.52	1.1	89	<.06
SH:UR-29	04-17-02	<.008	5.87	<.04	<.10	<.02	<1	<.05	<.2	21	<.06
SH:UR-8	04-17-02	<.008	1.44	<.04	<.10	<.02	<1	<.05	<.2	24	<.06
SH:UR-6	04-16-02	<.008	3.03	<.04	E.08	<.02	<1	.07	.2	41	<.06
Local ident- i- fier	Date	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
SH:UR-11	04-15-02	E4	.05	<.8	1.23	.5	24	<.08	2.8	167	E.1
SH:UR-31	04-16-02	32	.04	<.8	4.66	.4	136	<.08	.5	4680	E.1
Sh:P- 99	04-18-02	E6	.14	<.8	.96	8.3	98	1.42	.7	110	.2
SH:UR-29	04-17-02	<.7	<.04	<.8	.03	E.1	<10	<.08	.5	E.1	<.2
SH:UR-8	04-17-02	<.7	<.04	<.8	.14	<.2	<10	<.08	.9	.3	<.2
SH:UR-6	04-16-02	E7	<.04	E.6	.11	.5	27	<.08	.6	4.4	.2

QUALITY OF GROUND WATER

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SHELBY COUNTY--Continued

Local ident- i- fier	Date	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	RADON 222 TOTAL (PCI/L)	RN-222 2 SIGMA WATER, TOTAL, (PCI/L)	BROMO- DI- CHLORO- METHANE (UG/L)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L)
SH:UR-11	04-15-02	1.65	2.4	<1	481	2.6	3	--	--	<.05	<.06
SH:UR-31	04-16-02	.80	<.3	<1	179	1.6	1	--	--	<.05	<.06
Sh:P- 99	04-18-02	1.11	1.2	<1	108	2.2	6	--	--	<.05	<.06
SH:UR-29	04-17-02	.47	.7	<1	34.6	.6	<1	--	--	<.05	<.06
SH:UR-8	04-17-02	.36	E.3	<1	29.8	1.0	<1	--	--	<.05	<.06
SH:UR-6	04-16-02	1.28	.8	<1	34.4	2.2	<1	--	--	<.05	<.06
Local ident- i- fier	Date	1,2-DI- CHLORO- ETHANE TOTAL (UG/L (32103)	BROMO- FORM TOTAL (UG/L (32104)	DI- BROMO- METHANE TOTAL (UG/L (32105)	CHLORO- FORM TOTAL (UG/L (32106)	TOLUENE TOTAL (UG/L (34010)	BENZENE TOTAL (UG/L (34030)	CHLORO- BENZENE TOTAL (UG/L (34301)	CHLORO- ETHANE TOTAL (UG/L (34311)	ETHYL- BENZENE TOTAL (UG/L (34371)	METHYL- BROMIDE TOTAL (UG/L (34413)
SH:UR-11	04-15-02	<.1	<.06	<.2	<.02	<.05	<.04	<.03	<.1	<.03	<.3
SH:UR-31	04-16-02	<.1	<.06	<.2	<.02	<.05	<.04	<.03	<.1	<.03	<.3
Sh:P- 99	04-18-02	<.1	<.06	<.2	<.02	<.05	<.04	<.03	<.1	<.03	<.3
SH:UR-29	04-17-02	<.1	<.06	<.2	<.02	<.05	<.04	<.03	<.1	<.03	<.3
SH:UR-8	04-17-02	<.1	<.06	<.2	E.03	<.05	<.04	<.03	<.1	<.03	<.3
SH:UR-6	04-16-02	<.1	<.06	<.2	E.09	E.01	<.04	<.03	<.1	<.03	<.3
Local ident- i- fier	Date	METHYL- CHLO- RIDE TOTAL (UG/L (34418)	METHYL ENE CHLO- RIDE TOTAL (UG/L (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L (34536)
SH:UR-11	04-15-02	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03
SH:UR-31	04-16-02	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03
Sh:P- 99	04-18-02	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03
SH:UR-29	04-17-02	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03
SH:UR-8	04-17-02	<.2	<.2	E.01	<.09	<.04	<.04	<.03	<.06	<.09	<.03
SH:UR-6	04-16-02	<.2	<.2	E.02	<.09	<.04	<.04	<.03	<.06	<.09	<.03
Local ident- i- fier	Date	1,2-DI- CHLORO- PROPANE TOTAL (UG/L (34541)	TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L (34699)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L (34704)	VINYL CHLO- RIDE TOTAL (UG/L (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L (39180)	STYRENE TOTAL (UG/L (77128)
SH:UR-11	04-15-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
SH:UR-31	04-16-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
Sh:P- 99	04-18-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
SH:UR-29	04-17-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
SH:UR-8	04-17-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
SH:UR-6	04-16-02	<.03	<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04
Local ident- i- fier	Date	ALA- CHLOR, WATER, DISS, REC, (UG/L (46342)	ACETO- CHLOR, WATER, FLTRD REC (UG/L (49260)	ATRA- ZINE, WATER, DISS, REC (UG/L (39632)	ALPHA BHC DIS- SOLVED (UG/L (34253)	BUTYL- ATE, WATER, DISS, REC (UG/L (04028)	CHLOR- PYRIFOS DIS- SOLVED (UG/L (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L (04041)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L (04040)	DI- AZINON, DIS- SOLVED (UG/L (39572)	DI- ELDRIN DIS- SOLVED (UG/L (39381)
SH:UR-11	04-15-02	<.004	<.006	<.007	<.005	<.002	<.005	<.018	<.006	<.005	<.005
SH:UR-31	04-16-02	<.004	<.006	.153	<.005	<.002	<.005	<.018	<.006	<.005	<.005
Sh:P- 99	04-18-02	<.004	<.006	<.007	<.005	<.002	<.005	<.018	<.006	<.005	<.005
SH:UR-29	04-17-02	<.004	<.006	.008	<.005	<.002	<.005	<.018	<.006	<.005	<.005
SH:UR-8	04-17-02	<.004	<.006	.008	<.005	<.002	<.005	<.018	E.005	<.005	<.005
SH:UR-6	04-16-02	<.004	<.006	.042	<.005	<.002	<.005	<.018	E.025	<.005	<.005

WATER-QUALITY DATA, LOWER TENNESSEE RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT PROGRAM--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

SHELBY COUNTY--Continued

Local ident- i- fier	Date	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)
SH:UR-11	04-15-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
SH:UR-31	04-16-02	<.003	<.004	<.027	<.006	.023	<.003	<.010	<.010	.06	.333
Sh:P- 99	04-18-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
SH:UR-29	04-17-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	.008
SH:UR-8	04-17-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
SH:UR-6	04-16-02	<.003	<.004	<.027	<.006	<.013	<.003	<.010	<.010	<.01	<.005
Local ident- i- fier	Date	BEN- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82673)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
SH:UR-11	04-15-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
SH:UR-31	04-16-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
Sh:P- 99	04-18-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
SH:UR-29	04-17-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
SH:UR-8	04-17-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
SH:UR-6	04-16-02	<.010	<.041	<.020	<.003	<.006	<.02	<.009	<.005	<.002	<.035
Local ident- i- fier	Date	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
SH:UR-11	04-15-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
SH:UR-31	04-16-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
Sh:P- 99	04-18-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
SH:UR-29	04-17-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
SH:UR-8	04-17-02	<.050	<.006	<.002	<.007	<.004	<.022	<.006	<.011	<.004	<.011
SH:UR-6	04-16-02	<.050	<.006	<.002	<.007	<.004	E.012	<.006	<.011	<.004	<.011
Local ident- i- fier	Date	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)			
SH:UR-11	04-15-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			
SH:UR-31	04-16-02	<.02	.03	<.034	<.02	<.002	<.009	<.005			
Sh:P- 99	04-18-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			
SH:UR-29	04-17-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			
SH:UR-8	04-17-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			
SH:UR-6	04-16-02	<.02	<.02	<.034	<.02	<.002	<.009	<.005			

QUALITY OF GROUND WATER

SHELBY COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350114090071701 -- SH:J-146 MLGW-DAVIS

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD WATER UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 22...	1330	446	160	6.3	19.5	763	.3	3	63	14.0	6.81	7.24	20	
Date		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS STO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
AUG 22...	.4	.89	94	77	75	3.1	2.94	.12	13.6	91	95	.12	<20	
Date		BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		
AUG 22...		42.7	<13	236	<4	4.5	<50	<2.0	<14	<.1	36.6	<8		

350531090020501 -- SH:J-183

Date	Time	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD (STAND- ARD WATER UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)		
		(US/CM) (00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00900)	(00915)	(00925)	(00930)				
AUG 22...	1130	162	6.3	18.5	762	.1	1	61	13.6	6.56	7.74	21	.4		
Date		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WAT DIS TOT IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	
AUG 22...	.71	90	74	71	4.4	4.62	E.08	12.0	90	95	.12	<20	54.8		
Date		COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)				
AUG 22...		<13	711	<4	19.6	<50	4.6	<2	<.1	42.5	<8				

E--Estimated

QUALITY OF GROUND WATER

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SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350642089555000 -- SH:K-142 MLGW 99 SHEAHAN WELL FIELD

Date	Time	SPE- CIFIC CON- DUCT- ANCE	PH WATER WHOLE FIELD (STAND- ARD	TEMPER- ATURE WATER	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, (PER- CENT	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED	SODIUM, DIS- SOLVED	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	
		(US/CM) (00095)	UNITS) (00400)	(DEG C) (00010)	OF (MM HG) (00025)	SOLVED (MG/L) (00300)	SATUR- ATION) (00301)	AS (MG/L CACO3) (00900)	(MG/L AS CA) (00915)	(MG/L AS MG) (00925)	(MG/L AS NA) (00930)			
AUG 23...	1300	120	6.0	19.0	759	.1	1	36	7.88	3.83	8.62	34	.6	
Date		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
AUG 23...	.68	53	44	88	6.8	5.32	<.10	15.0	74	74	.10	<20	23.9	
Date		COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)			
AUG 23...		<13	147	<4	19.6	<50	<2.0	<14	<.1	21.8	<8			

350230089512301 -- SH:L- 37 MLGW-LICHTERMAN

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN,	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
				WATER WHOLE FIELD (STAND- ARD UNITS) (00400)		SURE		(PER- CENT SATUR- ATION) (00301)						
AUG 21...	0930	382	100	5.9	18.0	759	3.8	40	25	6.16	2.41	8.97	43	
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	
		(00931)	(00935)	(00453)	(39086)	(00405)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(70303)	(01106)
AUG 21...	.8	.54	43	35	89	3.1	5.78	<.10	14.3	55	62	.07	<20	
Date	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)			
		(01035)	(01046)	(01130)	(01056)	(01060)	(01065)	(01145)	(01075)	(01080)	(01085)			
AUG 21...		15.6	<13	35	<4	E1.0	<50	E1.1	<14	<.1	16.0	<8		

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350454089482101 -- SH:L-065 GERMANTOWN 2

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 26...	1515	326	74	6.0	18.0	753	3.8	41	20	4.87	1.98	6.64	41	
Date		SODIUM AD- SORP- TION RATIO (MG/L AS K) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 26...	.6	.44	34	28	56	2.3	4.20	<.10	12.6	39	50	.05	<.008	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 26...	.14	<.04	<.10	E.002	<.02	<20	14.6	<13	<10	<4	<2.0	<50	<2.0	
Date		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 26...	<2	<.1	13.6	<8	<.05	<.06	<.1	<.06	<.2	E.05	<.04	<.03	<.1	
Date		ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 26...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03	
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLORO- ETHYL- ENE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)			
AUG 26...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04			

QUALITY OF GROUND WATER

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SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350447089482601 -- SH:L-067 GERMANTOWN

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 27...	1200	605	77	6.2	18.5	756	.9	10	27	6.46	2.51	4.50	27
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 27...	.4	.39	37	30	39	2.6	2.96	<.10	11.3	37	49	.05	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 27...	.07	E.02	<.10	<.004	<.02	<20	13.0	<13	204	<4	4.5	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 27...	<2	<.1	13.4	<8	<.05	<.06	<.1	<.06	<.2	<.02	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 27...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 27...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350450089480601 -- SH:L-081 GERMANTOWN 6

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 26...	1030	835	60	6.1	19.4	754	.2	2	21	5.38	1.77	2.80	22
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 26...	.3	.54	29	24	39	2.9	1.32	<.10	9.87	35	39	.05	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 26...	<.05	<.04	<.10	.006	<.02	<20	11.8	<13	290	<4	3.7	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 26...	<2	<.1	18.2	<8	<.05	<.06	<.1	<.06	<.2	<.02	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 26...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLORO- ETHYL- ENE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 26...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

E--Estimated

QUALITY OF GROUND WATER

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SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350503089482201 -- SH:L-83 GERMANTOWN 5

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 27...	1500	622	87	6.4	19.0	755	.6	7	36	8.76	3.35	2.99	15	
Date		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 27...	.2	.38	47	39	30	2.6	1.59	E.08	9.99	38	53	.05	<.008	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 27...	<.05	<.04	<.10	<.004	<.02	<20	15.6	<13	252	<4	11.2	<50	<2.0	
Date		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 27...	<2	<.1	16.4	<8	<.05	<.06	<.1	<.06	<.2	<.02	<.04	<.03	<.1	
Date		ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 27...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03	
Date				TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 27...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04			

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350500089481801 -- SH:L-091 GERMANTOWN 8

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 27...	1345	314	67	6.0	18.0	755	4.0	43	19	4.64	1.91	5.64	38
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 27...	.6	.50	32	27	54	1.8	3.12	<.10	13.0	38	47	.05	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 27...	.08	<.04	<.10	<.004	<.02	<20	19.4	<13	<10	<4	<2.0	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 27...	<2	<.1	14.3	<8	<.05	<.06	<.1	<.06	<.2	E.04	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 27...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLORO- ETHYL- ENE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 27...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

E--Estimated

QUALITY OF GROUND WATER

403

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350449089480501 -- SH:L-092 GERMANTOWN 9

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 26...	1145	309	66	6.0	18.0	754	4.7	50	17	4.02	1.64	5.88	43	
Date		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 26...	.6	.40	31	26	51	1.5	3.62	<.10	12.4	40	45	.05	<.008	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 26...	.14	<.04	<.10	E.003	<.02	<20	13.8	<13	<10	<4	<2.0	<50	<2.0	
Date		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 26...	<2	<.1	11.9	<8	<.05	<.06	<.1	<.06	<.2	E.06	<.04	<.03	<.1	
Date		ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 26...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03	
				BENZENE TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 26...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04			

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350445089481001 -- SH:L-098 GERMANTOWN 10

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 26...	1400	321	74	6.0	18.0	754	4.3	46	20	4.81	1.92	6.70	42
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 26...	.7	.39	35	28	53	1.7	4.64	<.10	12.4	38	51	.05	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 26...	.28	<.04	<.10	E.004	E.01	<20	14.0	<13	<10	<4	<2.0	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 26...	<2	<.1	12.6	<8	<.05	<.06	<.1	<.06	<.2	E.05	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 26...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 26...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

Estimated

QUALITY OF GROUND WATER

405

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350403089445201 -- Sh:M-48 Germantown 2J

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 28...	0945	269	125	6.0	18.0	758	6.7	71	22	5.23	2.21	13.9	57
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 28...	1	.55	39	32	64	2.8	10.9	<.10	12.8	65	77	.09	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 28...	2.02	<.04	<.10	E.003	<.02	<20	20.3	<13	<10	<4	<2.0	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 28...	<2	<.1	15.0	<8	<.05	<.06	<.1	<.06	<.2	E.06	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 28...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLORO- ETHYL- ENE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 28...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350403089444301 -- Sh:M-49 Germantown 3J

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 28...	1100	256	87	5.9	17.7	757	6.4	68	18	4.40	1.76	9.16	52	
Date		SODIUM AD- SORP- TION RATIO (MG/L AS K) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 28...	.9	.44	32	26	64	1.8	7.96	<.10	12.3	50	57	.07	<.008	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 28...	.67	<.04	<.10	E.003	<.02	<20	15.5	<13	13	<4	<2.0	<50	<2.0	
Date		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 28...	<2	<.1	11.2	<8	<.05	<.06	<.1	<.06	<.2	E.09	<.04	<.03	<.1	
Date		ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 28...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03	
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLORO- ETHYL- ENE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)			
AUG 28...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04			

E--Estimated

QUALITY OF GROUND WATER

407

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350412089444301 -- Sh:M-51 Germantown 5J

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
AUG 28...	1245	304	50	5.8	18.0	757	4.8	51	12	2.96	1.21	4.23	42
Date	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 28...	.5	.41	23	19	58	1.0	3.07	<.10	11.6	32	36	.04	<.008
Date	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 28...	.14	<.04	<.10	<.004	<.02	<20	14.1	<13	13	<4	E2.3	<50	<2.0
Date	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 28...	E1	<.1	7.5	<8	<.05	<.06	<.1	<.06	<.2	E.06	<.04	<.03	<.1
Date	ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- ENE CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 28...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)		
AUG 28...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04		

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350408089443001 -- Sh:M-53 Germantown 7J

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 28...	1400	257	57	5.8	18.7	756	5.4	58	13	3.20	1.32	4.79	43	
Date		SODIUM AD- SORP- TION RATIO (MG/L AS K) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
AUG 28...	.6	.44	22	18	62	1.3	4.10	<.10	11.9	34	39	.05	<.008	
Date		NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 28...	.24	<.04	<.10	<.004	<.02	<20	14.6	<13	13	<4	E2.1	<50	<2.0	
Date		SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	BROMO- DI- CHLORO- METHANE TOTAL (UG/L) (32101)	CARBON TETRA- CHLO- RIDE TOTAL (UG/L) (32102)	1,2-DI- CHLORO- ETHANE TOTAL (UG/L) (32103)	BROMO- FORM TOTAL (UG/L) (32104)	CHLORO- DI- BROMO- METHANE TOTAL (UG/L) (32105)	CHLORO- FORM TOTAL (UG/L) (32106)	BENZENE TOTAL (UG/L) (34030)	CHLORO- BENZENE TOTAL (UG/L) (34301)	CHLORO- ETHANE TOTAL (UG/L) (34311)
AUG 28...	<2	<.1	8.2	E4	<.05	<.06	<.1	<.06	<.2	E.07	<.04	<.03	<.1	
Date		ETHYL- BENZENE TOTAL (UG/L) (34371)	METHYL- BROMIDE TOTAL (UG/L) (34413)	METHYL- CHLO- RIDE TOTAL (UG/L) (34418)	METHYL- CHLO- RIDE TOTAL (UG/L) (34423)	TETRA- CHLORO- ETHYL- ENE TOTAL (UG/L) (34475)	TRI- CHLORO- FLUORO- METHANE TOTAL (UG/L) (34488)	1,1-DI- CHLORO- ETHANE TOTAL (UG/L) (34496)	1,1-DI- CHLORO- ETHYL- ENE TOTAL (UG/L) (34501)	1,1,1- TRI- CHLORO- ETHANE TOTAL (UG/L) (34506)	1,1,2- TRI- CHLORO- ETHANE TOTAL (UG/L) (34511)	ETHANE, 1,1,2,2 TETRA- CHLORO- WAT UNF REC (UG/L) (34516)	BENZENE O-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34536)	1,2-DI- CHLORO- PROPANE TOTAL (UG/L) (34541)
AUG 28...	<.03	<.3	<.2	<.2	<.03	<.09	<.04	<.04	<.03	<.06	<.09	<.03	<.03	
Date			TRANS- 1,2-DI- CHLORO- ETHENE TOTAL (UG/L) (34546)	BENZENE 1,3-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34566)	BENZENE 1,4-DI- CHLORO- WATER UNFLTRD REC (UG/L) (34571)	DI- CHLORO- DI- FLUORO- METHANE TOTAL (UG/L) (34668)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	CIS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	VINYL CHLO- RIDE TOTAL (UG/L) (39175)	TRI- CHLORO- ETHYL- ENE TOTAL (UG/L) (39180)	STYRENE TOTAL (UG/L) (77128)			
AUG 28...			<.03	<.03	<.05	<.18	<.09	<.09	<.1	<.04	<.04			

E--Estimated

QUALITY OF GROUND WATER

409

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

350913090100801 -- SH:O-207 MLGW #12C

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
AUG 23...	1045	758	139	6.2	18.0	760	52	12.1	5.34	7.36	23	.4	.61
Date		BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (TONS PER AC-FT) (70301)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
AUG 23...	78	64	81	2.3	2.46	E.07	13.0	76	82	.10	<20	47.5	<13
Date			IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		
AUG 23...			344	<4	7.5	<50	<2.0	<14	<.1	41.3	<8		

351420089570900 -- SH:P-131 MLGW MORTON 621

Date	Time	SPE- CFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)
AUG 22...	0930	123	6.2	18.5	767	M	0	41	9.76	3.92	7.26	27	.5
Date		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CAC03 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
AUG 22...	1.03	69	57	66	3.4	2.52	E.07	10.7	63	74	.09	<20	55.4
Date			COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	
AUG 22...		<13	978	<4	15.1	<50	<2.0	<14	<.1	51.9	E4		

E--Estimated

QUALITY OF GROUND WATER

SHELBY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

351054089515301 -- Sh:Q-33

Date	Time	DEPTH	SPE-	PH		BARO-		OXYGEN,	HARD-		MAGNE-			
		OF	CIFIC	WATER	TEMPER-	METRIC		DIS-	NESS	CALCIUM	SIUM,	SODIUM,		
		WELL,	CON-	WHOLE	ATURE	PRES-	OXYGEN,	(PER-	TOTAL	DIS-	SOLVED	SOLVED	SOLVED	
		TOTAL	DUCT-	(STAND-	WATER	SURE	DIS-	SATUR-	AS	(MG/L	(MG/L	(MG/L	(MG/L	
		(FEET)	ANCE	ARD	(DEG C)	OF	SOLVED	ATION)	AS	(CACO3)	AS CA)	AS MG)	AS NA)	
		(72008)	(00095)	(00400)	(00010)	(00025)	(00300)	(00301)	(00900)	(00915)	(00925)	(00930)	(00932)	
AUG 21...	1400	275.	114	6.0	18.0	760	M	0	32	7.26	3.29	8.35	36	
Date		SODIUM	POTAS-	BICAR-	ALKA-	CARBON		CHLO-	FLUO-	SILICA,	SOLIDS,	SOLIDS,	SOLIDS,	
		AD-	SIUM,	BONATE	LINITY	DIOXIDE	SULFATE	RIDE,	RIDE,	DIS-	RESIDUE	SUM OF	DIS-	INUM,
		SORP-	DIS-	WATER	WAT DIS	DIS-	DIS-	DIS-	DIS-	DIS-	AT 180	CONSTI-	SOLVED	DIS-
		TION	SOLVED	DIS IT	TOT IT	SOLVED	SOLVED	SOLVED	SOLVED	DEG. C	TUENTS,	DIS-	(TONS	
		RATIO	(MG/L	MG/L AS	MG/L AS	(MG/L	(MG/L	(MG/L	(MG/L	AS	SOLVED	SOLVED	PER	
		(00931)	AS K)	HCO3	CAC03	AS CO2)	AS SO4)	AS CL)	AS F)	SIO2)	(MG/L)	(MG/L)	AC-FT)	
			(00935)	(00453)	(39086)	(00405)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(70303)	
AUG 21...	.6	.83	53	43	80	6.7	4.89	E.06	11.6	61	70	.08	<20	
Date		BARIUM,	COBALT,	IRON,	LITHIUM	MANGA-	MOLYB-	NICKEL,	SELE-	SILVER,	STRON-	VANA-		
		DIS-	DIS-	DIS-	DIS-	NESE,	DENUM,	DIS-	NIUM,	DIS-	TIUM,	DIUM,		
		SOLVED	SOLVED	SOLVED	SOLVED	DIS-	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	
		(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	
		AS BA)	AS CO)	AS FE)	AS LI)	AS MN)	AS MO)	AS NI)	AS SE)	AS AG)	AS SR)	AS V)		
		(01005)	(01035)	(01046)	(01130)	(01056)	(01060)	(01065)	(01145)	(01075)	(01080)	(01085)		
AUG 21...		33.6	<13	675	<4	10.1	<50	<2.0	<14	<.1	29.7	<8		

350835089434100 -- SH:R- 29 MLGW #710

Date	Time	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	
AUG 21...	1130	589	51	5.8	19.0	760	1.7	18	14	3.64	1.30	3.77	35	
Date		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3 (39086)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
AUG 21...	.4	.44	25	20	66	1.5	1.95	<.10	9.97	33	35	.05	<20	
Date		BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)		
AUG 21...		6.9	<13	38	<4	E2.4	<50	<2.0	<14	<.1	8.6	<8		

E--Estimated

00441400 HATCHIE NATIONAL WILDLIFE REFUGE RAIN GAGE AT HILLVILLE, TN

(NATIONAL TRENDS NETWORK)

LOCATION.--Lat 35°28'08", long 89°10'14", Haywood County, Hydrologic Unit 08010208, 0.9 mi north of Hillville, 12 mi southeast of Brownsville.

PERIOD OF RECORD.--October 1984 to current year.

INSTRUMENTATION.--An automatic wet-dry precipitation collector is used to collect 7-day accumulations. The collector is equipped with a precipitation sensor which activates a motor to operate the sample bucket cover. The sample bucket remains uncovered for the duration of each precipitation event and covered during dry periods. Dryfall samples are not collected. A standard 8.0-inch recording rain gage is used to obtain on-site precipitation records.

REMARKS.--These data are part of the data for this site verified by the National Atmospheric Deposition Program/National Trends Network (NADP/NTN) Coordinator. Additional data are available from the NADP/NTN Coordinator, Natural Resource Ecology Laboratory, Fort Collins, Co. 80523. Finalized, quality assured data from all 200 NADP/NTN sites are available on-line via the internet at <http://btdqs.usgs.gov/acidrain>

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